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ABSTRACT

One hundred eight Swedish educational research projects in all fields are summarized. Project title, location, project leader, number of researchers and other personnel, starting and completion dates, financial sources, background and aims, scope, methods, main findings, and bibliographic references are listed for each project. (DT)

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Educational Research in Sweden 1971-72

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INTRODUCTION

The Council of Europe's ad hoc Committee for Educational Research, which was set up by the Council for Cultural Co-operation in 1968, has the task of promoting information on, co-ordination of, and co-operation in educational research at the European level.

Under the guidance of the Committee, the Documentation Centre for Education in Europe carried out and published European Surveys on Educational Research at two-year intervals. The First Survey was conducted in 1968 and published in 1969 (Council of Europe - Educational Research, European Survey 1968. Strasbourg, Documentation Centre for Education in Europe, 4 vols., 1969). The Second Survey was carried out in 1970 and published in 1971 (Council of Europe - Educational Research, European Survey 1970. Strasbourg, Documentation Centre for Education in Europe, 5 vols., 1971).

The present survey is the result of a common project undertaken by member governments in the framework of the Council of Europe and on the basis of a common questionnaire which was elaborated by the ad hoc Committee for Educational Research.

The collection of data has been made in co-operation between the National Swedish Board of Education, the Office of the Chancellor of the Swedish Universities, the Social Science Research Council and the National Library for Psychology and Education. The collection of data was completed on June 1, 1972.

The research institutes are listed in alphabetical order according to the town in which they are situated. The research of each institute is listed in alphabetical order according to the name of the principal researcher. A subject index is given on page 141 for the benefit of those requiring information on particular sectors of research. An index of participating researchers is given on page 144.

It should be made clear that the findings of several of the projects are of a preliminary character so that in many cases the reports issued cannot be expected to provide definite conclusions for the practical work in the education system.

As a rule the results of research have to be followed up by means of educational development work in order to be converted into practically applicable conclusions and results.

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Olle Överby
Editor
The National Swedish
Board of Education

1.

Project title:	Self-teaching Special Education (Project SISU)
Carried out at:	The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg
Project leader:	Ulla-Britt Bladini
Number of researchers:	- Other personnel: 5
Starting date:	1967 Date of completion: 1973
Source of finance:	The National Board of Education
Background and aims:	A starting point for the SISU project is the experience that pupils with learning difficulties need, if they are to aquire basic proficiencies, well constructed, systematically drawn up exercises which have been tried out on the clientèle for whom they are intended. A body of material of this sort, adapted to special circumstances and in addition self-teaching and self-correcting, is necessary to maintain adequately individualized instruction.
Scope:	The project has constructed about 90 prototypes in Swedish and arithemetic, which have been tried out in about 100 special classes and remedial clinics during 1971-72.
Methods:	The evaluation consists of effect measures of learning, pupil and teacher attitudes, pupil and teacher observations and a special study of arithmetic (multiplication).
Main findings:	Preliminary findings show learning effects, positive pupil and teacher attitudes and a high degree of pupil self activity. Reports during 1972-73 will describe the results in detail.
Bibliographic references:	All reports are in Swedish.

Bladini, Ulla-Britt Målbeskrivningar i ämnet svenska på lågstadiet. (Goal descriptions in Swedish instruction, primary level). Gothenburg School of Education, 1968, 111 p.

Olsson, Hans & Österberg, Inga Målbeskrivningar i ämnet matematik på lågstadiet. (Goal descriptions in mathematics, primary level). Gothenburg School of Education, 1969, 149 p.

Österberg-Karlsson, Inga Konsonantens teckning efter kort vokal. Gothenburg School of Education, 1970, 58 p + app.

Bladini, Ulla-Britt Konsonantens teckning efter kort vokal. Gothenburg School of Education, 1971, 81 p + app.

2.

Project title: Micro-teaching

Carried out at: The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg

Project leader: Christer Brusling, Karl-Gustaf Stukát

Number of researchers: 2 Other personnel: -

Starting date: 1970 Date of completion: 1973

Source of finance: The National Board of Education

Background and aims: Microteaching is a relatively well defined concept in the sphere of student teaching in teacher training. The technique is characterized by being goal directed, reduced in terms of complexity of teaching, using CCTV as a means of presenting objectives and as a means of providing feedback of the results of the training. The aims of the project are to test experimentally the effectiveness of different variations of the technique and to test models for implementation of effective procedures into regular teacher education.

Scope: In 1970-71 a laboratory experiment was conducted using 48 subjects. A more extensive experiment with implementation character is planned in 1972-73.

Methods: The above mentioned laboratory experiment was designed as a factorial experiment. The evaluation of results was done mainly by coding of observations of videaotaped student teachers' practices. Statistical analysis was done mainly by analysis of covariance, uni- and multivariate.

Main findings: One of the factors of the experiment may be called the factor of modelling. It appeared at three levels: no model at all, a model with contiguous auditive cues at demonstrations of goal-related behavior and a model without such helps. The presence of a model yielded positive effects but the type of model made no difference. The immediate effects of selfconfrontation seemed to be positive but changed later on into negative effects. The proven gains after the laboratory-like training of two hours largely disappeared two months later when the student teachers were observed in regular classrooms. The student teachers held very positive attitudes toward the used variants of microteaching.

Bibliographic references:

School Research Newsletter 1971:4, Stockholm, National Board of Education, 1971, 10 p.

Brusling, Christer Effects of cued modelling procedures and self-confrontation in a micro-teaching setting aimed at developing non-verbal behavior. Paper presented at the International Micro Teaching Symposium, Universität Tübingen, West Germany 1972. Gothenburg School of Education, 1972. (In English, available from the author)

Tingsell, Jan-Gunnar Beteendeobservationer med mekanisk registrerutrustning (Observations of behavior by means of a mechanical recorder). Gothenburg School of Education, 1972, 24 p + app.

3

Project title:	Literature in the comprehensive school (Project LIGRU)
Carried out at:	The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg
Project leader:	Göte Klingberg
Number of researchers:	3 Other personnel: 1
Starting date:	1969 Date of completion 1973 (1976)
Source of finance:	The National Board of Education
Background and aims:	The aim is to analyse the objectives of literary instruction in the Comprehensive School and to test the application of a goal-referenced instruction in this area through a co-ordination of objectives with instructional procedures and evaluative criteria.
Scope:	-
Methods:	Goal analyses have been carried out through an empirical goal document analysis and a requirement analysis. Both analyses have been accomplished with the help of a newly constructed goal taxonomy; the requirement analysis also on the basis of the goal document analysis. The theoretical problems involved in the co-ordination of instructional procedures and evaluative criteria with objectives are treated, and procedures and criteria, empirically collected, are co-ordinated with objectives. The purpose has been to test the application of a goal-referenced instruction in literature and to work out needed instructional programs and teaching aids.

Main findings: Construction of a taxonomy for the classification of educational objectives. Working out of a technique of producing goal of a curiculum type with the help of an analysis of mostly implicitly or vaguely defined objectives. Construction of a technique for requirement analyses using explicit goal descriptions classified taxonomically. Distinction between levels of generality in goal decriptions and between procedures answering to these levels. Taxonomic classification of instructional procedures and evaluative criteria. Application of these techniques to literary instruction in the Comprehensive School.

Bibliographic references: All reports are in English.

Klingberg, Göte A scheme for the classification of educational objectives. Gothenburg School of Education, 1970, 67 p.

Klingberg, Göte & Ågren, Bengt Objectives stated for the use of literature at school. An empirical analysis. Gothenburg School of Education, 1971, 458 p.

Klingberg, Göte & Ågren, Bengt Expert opinions on the use of literature in the Swedish comprehensive school. A taxonomic approach to requirement analysis. Gothenburg School of Education, 1972, 111 p.

4

Project title: Socialization in preschool

Carried out at: The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg

Project leader: Gunni Kärrby

Number of researchers: 3 Other personnel: -

Starting date: 1972 Date of completion: 1975

Source of finance: The National Board of Education

Background and aims: The goal of the project is to produce teaching material and try out teaching methods which aim at increasing 5 to 6 year old preschool children's insight into interpersonal problem solving by making them aware of their own and others' emotional reactions in conflict situations and to teach them constructive solutions. Further, the aim is to broaden the children's understanding of other people's ways of thinking and acting by making

them aware of how different people live, to teach them to apply basic social norms but at the same time make them understand the relativity of the norm system, to train them in the ability to make group decisions, to perform different roles and work toward a group goal in different kinds of group activity. The methods are generally aimed at increasing the children's insight, understanding and creative ability rather than training of "adjusted" behavior.

Scope: During the school year 1972/73 the methods are to be tested in a few preschools. During the years 1973/74 the teaching methods are to be applied in a greater number of preschools.

Methods: The evaluation methods comprise individual tests and observations. Social insight is to be tested in individual doll play situations. Cooperative behavior in groups is to be tested in experimental situations. Observations of group behavior will be made during free play. The test instruments are being tried out in the present time.

Main findings: -

Bibliographic references: -

5

Project title: Comparative studies in foreign language teaching

Carried out at: The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg

Project leader: Lennart Levin

Number of researchers: 5 Other personnel: 2

Starting date: 1968 1972

Source of finance: The National Board of Education

Background and aims: The main purpose of the research has been to investigate the tenability of two competing foreign-language learning theories, the audio-lingual habit theory and the cognitive code-learning theory. During the period 1968 - 1971 a fierce debate on language pedagogy took place in Sweden. The present research was partly intended to shed some light on problems brought to focus in that debate.

Scope: 10 parallel experimental studies performed at various levels of the Swedish Comprehensive School system and at the adult level. In all, around 2000 students were included.

Methods: Various teaching strategies designed to correspond to the two theories, have been compared at different age levels. Ten parallel experiments were performed; the lesson series in each experiment dealt with one or more grammatical structures known to cause Swedish students great trouble. Treatment effects were investigated by analysis of variance and covariance, and aptitude-treatment interactions were sought for by two-way analysis of variance. The sampling unit which consists of the single school class and the unit of statistical analysis is, in cases where the number of degrees of freedom permits, the school class mean. The experimental schedule was very similar from experiment to experiment: 1. IQ testing 2. Pretest 3. Introductory lesson explaining experimental aims, procedures, drill techniques etc. 4. The lesson series administrered (the experiment proper) 5. Posttest 6. Pupil and teacher attitude tests 7. Retest (only in three of the ten experiments)

Main findings: The main results indicate that at the adult level the so-called Explicit-Swedish method, i.e. a method providing verbalized explanations or generalizations in the mother tongue of the structures concerned, is superior to the Implicit method, a strictly systematized method containing structure drills but no explicit formulations of either what the drills are about or how the problems should be solved. In the accelerated course, at the Comprehensive School level, a similar tendency is observed whereas, in the less advanced course, no differences between the various methods are obtained. However, in the latter course, learning is generally very insignificant and the results support the hypothesis that the pupils belonging to the easier course identify themselves as low-achievers and do not work up to their ability. No interactions between different ability levels and the dependent variables were obtained at any particular age level. At the adult level the superiority of the Explicit method was supported by sympathetic attitudes towards it.

Bibliographic references:

Levin, Lennart Comparative studies in foreign-language teaching, Stockholm, Almqvist & Wiksell, 1972, 257 p. (In English)

6

Project title:	The GUME/Adults project
Carried out at:	The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg
Project leader:	Lennart Levin, Tibor von Elek, Mats Oskarsson
Number of researchers:	2 Other personnel: -
Starting date:	1969 Date of completion: 1974
Source of finance:	The National Board of Education
Background and aims:	The main objective of the research is to test which of two major language learning theories - the cognitive code-learning and the audio-lingual habit theory - provides the better basis for the teaching of second language grammar to adults. For this purpose two experimental methods, an explicit and an implicit method were compared in an empirical experiment in the fall of 1970. The interesting results of this investigation (see Main findings) justified further experiments, primarily replications of the first experiments.
Scope:	The replication was carried out in the fall of 1971. Students of two folk high schools were used as experimental subjects. The final sample consisted of 90 subjects with an average age of 22. Apart from minor changes the replication duplicated the experimental conditions of the main investigation.
Methods:	Two groups were given the explicit and two groups the implicit treatment. The experimental lessons though identical in content, differed with respect to method. Each lesson series consisted of ten 40-minute lessons. In order to keep the teacher variable under control the lessons were taped. They included workbooks and extensive overhead transparency material. Progress was measured with the aid of a test battery administrered both as a pretest and a posttest. A pupil attitude test (questionnaire) and a verbal aptitude test were included as well as other tests.
Main Findings:	The original experiment resulted in significant differences of learning effect in favour of the explicit method. The explicit treatment group also did better in the oral tests. Analyses of variance revealed no interaction effects between method on the one hand and age, proficiency, and verbal aptitude on the other. Moreover, the explicit subjects were significantly more positive toward their treatment than the implicit subjects. The replication supports the findings of the first investigation. On the basis of the results gained from the research, the following conclusions can be drawn: a teaching strategy determinde by the cognitive codelearning theory results in better learning

effect and generates a more favorable attitude with adult students than does a method relying on audio-lingual habit principles.

Bibliographic references:

von Elek, Tibor & Oskarsson, Mats Teaching foreign language grammar to adults: A comparative study. Gothenburg School of Education, 1972, 220 p. + app. (In English)

von Elek, Tibor & Oskarsson, Mats An experiment assessing the relative effectiveness of two methods of teaching English grammatical structures to adults. International Review of Applied Linguistics in Language Teaching, Vol. X, No. 1, 1972: pp. 60-72. (In English)

7

Project title: The GUME/Tests project

Carried out at: The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg

Project leader: Torsten Lindblad

Number of researchers: 2 Other personnel: 1.5

Starting date: 1970 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims: Among the aims of the project the following four are the most important: 1. To create new standardized tests in English as a foreign language, meant to be used in grades 6 and 8 of the Comprehensive School, 2. To start building a large battery of tests, so that alternative parallel tests can be sampled each year. 3. To investigate the possibility of creating standardized tests of the productive skills. 4. To investigate the factorial structure of foreign language proficiency at different levels.

Scope: The main outcome of the project, so far, has been a number of tests; the new battery for grade 8 has been used in May 1972, for the first time. A number of term papers in education have been written within the project.

Methods: New tests are constructed, based on current theories and findings in psychometrics and foreign language teaching methodology. These go through successive tryouts, teacher opinions are collected

and a panel of experts scrutinize the tests and the tryout results. Before final acceptance the tests are given to a large sample (N appr. 2500) and item analyses are performed, various statistical methods are used and teacher opinions are scrutinized.

Main findings: One of the most important findings so far is the (expected) large range in results, especially large in the more difficult of the two alternative branches, the so-called special course, indicating that the need to individualize is at least as great in this course as in the other one, the easier general course. The tests for grade 8 have also been given to pupils in grade 9 and in the Secondary School, i.e. one to four years above the level for which they were constructed. Preliminary results seem to yield interesting insights into the problem of the growth of foreign language proficiency.

Bibliographic references:

Lindblad, Torsten Nya standardprov i engelska i åk 8. (New standardized tests in English in grade 8). LMS/LINGUA, No. 1, 1972, pp. 6-14. (In Swedish)

8

Project title: Didactic Process Analysis (Project DPA)

Carried out at: The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg

Project leader: Karl-Gustaf Stukát

Number of researchers: 4.5 Other personnel: 0.5

Starting date: 1967 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims: The purpose of the project is

a) to plan main structures in the didactic process

b) to relate process to predicted variables and effect, (product) variables

c) to compare process in different school subjects

d) to compare process in different school milieus (i.e. regular class/special class)

e) to construct and test programmes in teacher education

f) to develop and test new instruments for teacher education

Scope: -

Methods: TV-recordings have been performed in 60 classes, two days in each class. For these TV-recordings two mobile TV-units have been used which were moved between different schools. A selection of the observed material, chosen according to the time-sampling method, was videotaped. The TV-recordings have been supplemented with continuous tape-recordings. By means of questionnaires, interviews, tests and examining of register data concerning milieu, teacher and pupil characteristics concerning the instructional process and instructional effectiveness have been gathered. Data have been coded and prepared for correlation, regression factor analysis and latent profile analysis.

Main findings: Analysis of teacher activities: Collective classroom instruction dominates. Classroom discourse mainly takes place on a fact and question-and-short answer level and more seldom on a higher cognitive level including interpretation, conclusion or evaluation. Teaching profiles: Activity, "ideal", informal, question-feedback, knowledge imparling. Comparison special/ordinary instruction: Instruction is similar in most respects. Curriculum expectations are only partially met. New teacher roles: Individual and small-group contents, diagnosis, guidance, teamwork, heuristic teaching on cognitive level.

Bibliographic references:

Stukát, Karl-Gustav Teacher role in change. Gothenburg School of Education, 1970, 20 p. (In English)

Bredänge, Gunnel et al Didaktisk processanalys. Presentation av syften, uppläggning, undersökningsgrupper och mätinstrument samt några beskrivande data. Gothenburg School of Education, 1971, 138 p. (In Swedish)

Gustafsson, Bengt & Stigebrandt, Eva Vad kännetecknar undervisning i hjälpklass? En jämförelse mellan undervisningsprocesser i hjälpklass och vanlig klass. (What characterizes the instructional processes in special classes and in ordinary classes) Gothenburg School of Education, 1972, 209 p + app. (In Swedish)

9

Project title: The Preschool Project

Carried out at: The Department of Educational Research, Gothenburg School of Education, Övre Husargatan 34, S-413 14 Göteborg

Project leader: Karl-Axel Sverud, Karl-Gustaf Stukát

Number of researchers:	3	Other personnel:	-
Starting date:	1968	Date of completion:	1972
Source of finance:	The National Board of Education		

Background and aims:

A comparison of the official objectives of preschool and its actual achievements has illustrated the desirability of new elements in current preschool pedagogics. There is a great need for various programmes and methods based on theories of development psychology and the psychology of learning, to be constructed and tested prior to policy decisions regarding the design and scope of an optimum pedagogical preschool programme.

Scope:

12 preschools (c. 450 six-year-olds) in each control and experimental group, respectively.

Methods:

Preschool objectives as regards social training, communication training and concept training have been analysed and described in behavioural terms. On the basis of this, aims analysis materials and methods have been collected and compiled which are expected to lead to the objectives established. The programme thus evolved has been tested in 24 groups of children during 1970/71 and the results from these groups are being compared with 24 similar control groups.

Main findings:

The experimental programme has led to the expected learning effects, as compared to those of the control programme. Furthermore, it has been received positively by the children as well as by the teachers. The goal-directed experimental programme has been conducted by means of indirect child-centered methods.

Bibliographic references:

Sverud, Karl-Axel Utveckling och utvärdering av inlärningsorienterade aktiviteter i förskolan (The development and evaluation of learning-orientated activities in the preschool. University of Gothenburg, 1972, 143 p + app. (In Swedish)

10

Project title: Studies of the Generation Gap (The Stug project)

Carried out at: The Institute of Education, University of Gothenburg, Mölndalsvägen 36, S-412 63 Göteborg

Project leader: Bengt-Erik Andersson

Number of researchers:	2	Other personnel:	1.5
Starting date:	1970	Date of completion:	1976

Source of finance: The Bank of Sweden Tercentenary Fund

Background and aims: To develop and test models of the origin of the generation gap - if it exists - and to study some aspects of young people's adoption and perception of the adult role. The project is most concerned with opposition between generations. This opposition is described in a model with three dimensions: 1. Real differences 2. Perception of differences 3. Emotional reactions. One of the main hypotheses is that good psychological contact decreases the amount of perceived opposition.

Scope: About 4,500 20-year-olds, investigated when they were 14, (within the frame of Project YG), received a mail questionnaire during the spring of 1971. A sample of about 400 young people and their mothers were interviewed during the spring of 1972. Follow-up studies are planned.

Methods: Questionnaires sent by mail. Interviews: some parts tape-recorded. Questionnaires and tests administrered at the same time as the interview.

Main findings: -

Bibliographic references: All reports are in English.

Andersson, Bengt-Erik Actual and perceived attitudes among adolescents and adults towards a group of Swedish teenagers and their parents. University of Gothenburg, 1971, 18 p.

Andersson, Bengt-Erik & Ekholm, Mats The generation gap. University of Gothenburg, 1971, 52 p.

Andersson, Bengt-Erik & Ekholm, Mats Swedish youth of today. Description of a research project about the generation gap. University of Gothenburg, 1971, 23 p.

Andersson, Bengt-Erik & Ekholm, Mats The Stug Project. Paper presented at the Symposium of the International Society for the Study of Behavioral Development in Nijmegen, July 4-8, 1971. University of Gothenburg, 1971, 8 p.

Sundström, Ingeborg The generation gap: Fact or fiction? University of Gothenburg, 1971, 31 p.

11

Project title:	Youth in Göteborg (Project YG)
Carried out at:	The Institute of Education, University of Gothenburg, Mölndalsvägen 36, S-412 63 Göteborg
Project leader:	Bengt-Erik Andersson
Number of researchers:	3 Other personnel: -
Starting date:	1963 Date of completion: 1972
Source of finance:	The National Board of Education
Background and aims:	1. Youth-psychological study of the attitudes of teenagers to school, teachers, friends, themselves, aspect of their environment, leisure time activities, etc. and school performance. 2. Study of differences regarding the above variables between pupils attending different types of schools in a differentiated school system and pupils attending an undifferentiated school system. 3. Study of school and class climate and its importance for the development of attitudes and behaviours. 4. Study of the composition of student groups and its importance for school adjustment etc.
Scope:	The project consists of a large number of substudies. The total number of subjects amount to about 12,000 adolescents in the ages of 14-16, mostly from Göteborg.
Methods:	The main instrument is a questionnaire. In the larger studies, intelligence and achievement tests have also been used. In different substudies, different kinds of interviews and questionnaires have been used.
Main findings:	It is impossible to summarize the amount of results here. They are reported in 1 doctoral dissertation, 6 licentiate theses, 48 theses for the three mark level, 12 reports in the project's main series, 1 popular book and several journal papers. As a consequence of the project, two new projects have started, i.e. The Stug Project and the SOS Project.
Bibliographic references:	Andersson, Bengt-Erik Studies in adolescent behaviour. Stockholm, Almqvist & Wiksell, 1969, 400 p. (In English)
	Andersson, Bengt-Erik & Wallin, Erik Tonåringarna och omvärlden (The teenagers and the world around them). Stockholm, Almqvist & Wiksell, 1971, 218 p. (In Swedish).
	Andersson, Bengt-Erik Parental and peer influences and adolescent peer orientation. University of Gothenburg, 1971, 24 p. (In English)

Andersson, Bengt-Erik Kamratinflytande. Studier i anslutning till projekt UG (Peer influence. Studies in connection with Project YG). Nordisk Psykologi, Vol. 23, No. 4, 1971, pp. 353-386. (In Swedish)

12

Project title:	University Studies in Teams
Carried out at:	The Institute of Education, University of Gothenburg, Mölndalsvägen 36, S-412 63 Göteborg
Project leader:	Anders Fransson, Ference Marton
Number of researchers:	0.5 Other personnel: -
Starting date:	1971 Date of completion: 1973
Source of finance:	The Office of the Chancellor of the Swedish Universities
Background and aims:	The project was inspired by a recommendation of the UPU Commission of Inquiry 1970. According to UPU, students should be divided into teams prior to undertaking a course of study and work together in these teams throughout the course. Each group would be assigned a tutor who follows its progress through all course topics. To what extent working in teams can replace ordinary teacher-led instruction is one of the problems of the investigation. The team model has a two-fold purpose: First to provide a more favourable studying situation with close contact with a teacher who can view the subject in perspective and second, to counteract the tendency towards ever greater isolation which has come in the wake of the "student explosion".
Scope:	1971/72: Planning studies including in-depth study of two teams. 1972/73: Evaluating study of four teams. Final report in the spring of 1973.
Methods:	When the 1971 autumn term started, the students who had registered for the A 1-course in Education at the University of Gothenburg formed two teams, each consisting of eight participants. The team members were randomly selected from the total student body. The two groups remained intact throughout the term with the investigation leader serving as tutor. The teams conferred with the tutor once a week and attended regular classes. The main purpose of the planning studies was to develop suitable working practices for the team, to enumerate, survey and analyze the difficulties that the team model may entail for students and

tutors, to study the points at which working in teams renders ordinary instruction superfluous and to design a plan for investigating the effects of teamwork on specific performance and on the overall studying situation. During the 1972 autumn term, four teams will be formed with two different tutors. This term, the teams will attend only a small part of the regular teacher-led instruction The effects of the team-model on scholastic achievements and social adjustment will be evaluated.

Main findings: Preliminary results from the pilot study during the autumn term 1971 indicates better scholastic achievement in teams, than in control groups. Effects on social and personal situations have not been systematically evaluated. The planning studies have revealed that informal investigations of a similar kind are going on in several other university departments in Sweden. Very few results are as yet reported.

Bibliographic references: -

13

Project title: Models for the Adaptation to Individual Differences (Project MID)

Carried out at: The Institute of Education, University of Gothenburg, Mölndalsvägen 36, S-412 63 Göteborg

Project leader: Kjell Härnqvist

Number of researchers: 1 Other personnel: 1

Starting date: 1971 Date of completion: 1975

Source of finance: The National Board of Education

Background and aims: Survey and analysis of models for individualization from a differential psychological point of view. Attempts to develop individual difference variables that, more than those now available, measure the learning process in the individual. Interactions between individual differences and instruction are emphasized.

Scope: A number of literature surveys and experimental investigations of limited scope.

Methods: Literature surveys. Statistical analyses of data on the stability of individual differences. Development of new difference variables and corresponding field testing and analyses.

Main findings: The first survey of the literature on the interactions between individual differences and instructional methods showed the need of new types of difference variables, since instruments constructed within psychometric research are difficult to relate to qualitative and quantitative measures of individual learning.

Bibliographic references:

Gustafsson, Jan-Erik Interaction between individual and instructional variables. Introduction and review of literature on the subject. University of Gothenburg, 1971, 102 p. (In English)

Härnqvist, Kjell Canonical analyses of mental test profiles. University of Gothenburg, 1972, 48 p. (In English)

14

Project title: Applied Psychology of Learning and Learning Skills

Carried out at: The Institute of Education, University of Gothenburg, Mölndalsvägen 36, S-412 63 Göteborg

Project leader: Ference Marton, Lennart Svensson

Number of researchers: 3 Other personnel: 2

Starting date: 1970 Date of completion: 1974

Source of finance: The Office of the Chancellor of the Swedish Universities

Background and aims: The project attempts to illuminate three issues. We mention these in the following order as we mean that the answer to one question comprises a basis for the answering of another of the questions. 1. How can knowledge (i.e. what is learnt) be observed at a functional level? 2. How can learning skills be observed and described at a functional level? 3. How can learning skills be influenced? These questions are placed in a certain context - university studies. The subjects chosen are characterized by a type of learning which involves working with relatively broad verbal material.

Scope: During the project's first two years, two large data collections have taken place. The first one included 30 education students

and the second one 30 social science students. Supplementary studies have also been carried out and experimental studies attempting to influence learning skills have been planned.

Methods:

The main body of data is obtained through interviews of the subjects. The interviews are tape-recorded and later written. The transcriptions are usually about 100 pages per subject and comprise the project's main material. The interviews focus on learning of text materials and the subjects answer various types of questions concerning the content of the material and also make retrospective observations of the learning and recounting processes. In the interviews, the subjects also discuss their normal study method. Examination marks comprise further supplementary data. The data analysis will mainly be carried out at the individual level, that is aiming at describing and comparing the individuals as whole units (comparisons between individuals, considering the characteristic patterns within the individuals). The analysis and interpretation of verbal information is a large methodological problem. The planned experiments to influence learning skills will include experiments with influence via instruction, via the material and via the test questions posed.

Main findings:

No results relating to the central issues have as yet been published. However, if the goals are at least partially reached we should receive a better foundation for taking a stand on vitally important questions concerned with post-secondary school education like: 1. Goal descriptions 2. What is really tested by different types of examination 3. The relative distribution of independent versus organized studies 4. Advice to the students on study methods

Bibliographic references:

Marton, Ference & Svensson, Lennart Vad säger oss det som sägs? University of Gothenburg, 1970, 17 p. (In Swedish)

Arlebrink, J. & Säljö, Robert En alternativ metod för intensivläsning. (An alternative method for intensive reading). University of Gothenburg, 1971, 32 p. (In Swedish)

Marton, Ference & Sandqvist, Gjertrud Learning while typing. University of Gothenburg, 1971, 6 p. (In English)

André, Raoul Den första terminen. Aktiviteter och upplevelser i en studiemiljö. (The first term. Activities and experiences in a study environment). University of Gothenburg, 1972, 100 p. (In Swedish)

Fransson, Anders Testängslighet och språkfärdighet: En studie av sambandet mellan testängslighet och prestationer på prov i skriftlig språkfärdighet i engelska. (Test anxiety and language proficiency: A study of the relationship between test anxiety and test results in written language proficiency in English). University of Gothenburg, 1972, 124 p. (In Swedish)

15

Project title:	Cognitive Development
Carried out at:	The Institute of Education, University of Gothenburg, Mölndalsvägen 36, S-412 63 Göteborg
Project leader:	Björn Sandgren
Number of researchers:	1 Other personnel: 1
Starting date:	1971 Date of completion: 1973
Source of finance:	The Social Science Research Council
Background and aims:	The chief aim of the research programme is to develop psychometric instruments, which in their content is derived from Piagetian intelligence theory, with a purpose to diagnose cognitive levels. From this approach the project intends to study individual differences in the spectrum of sex, age, social class and achievement.
Scope:	Basic data are collected from 700 pupils, aged 11, 13 and 15 from the comprehensive school.
Methods:	The main methodological problem has been the construction of mental tests with contents drawn from the experiments of Piaget, which could be used in a group testing setting.
Main findings:	-
Bibliographic references:	-

16

Project title:	Evaluation of Education in Psychology regarding expectations and demands directed towards the role of the psychologist
Carried out at:	The Institute of Psychology, University of Gothenburg, Fack, S-400 42 Göteborg 26
Project leader:	Sigvard Rubenowitz, Lillemor Andersson, Olof Berne
Number of researchers:	2 Other personnel: -

Starting date:	1972	Date of completion:	1973

Source of finance: The Social Science Research Council

Background and aims: The function of the position of psychologists in modern society has, in Sweden, been thoroughly discussed. Interested parties have different expectations and the role prescriptions are probably rather ambiguous. The problem is how selection of education and the education itself influence the actions of the psychologists in the complexities of a modern society. The project aims at, on the basis of description and analysis of the role relations, design general models for evaluation of vocational-directed educations and vocational selection.

Scope: -

Methods: The project is divided in three phases, which are:

1. Analysis of the role
2. Evaluation model
3. Model for vocational selection

The analysis will be performed through interviews, surveys and theoretical studies.

Main findings: Of the basis of the analysis, concrete conclusions are expected to be drawn regarding selection, education and vocational demands within different sectors.

Bibliographic references: -

17

Project title: The Study Day Project

Carried out at: The Department of Educational Research, Linköping School of Education, Box 3129, S-580 03 Linköping

Project leader: Harald Eklund

Number of researchers:	1.5	Other personnel:	0.5
Starting date:	1970	Date of completion:	1973

Source of finance: The National Board of Education

Background and aims:

The long-term aim of the project is to contribute towards the development of efficient models for study day activities in refresher training for teachers. Subsidiary aims are:

1. To analyse the objectives of study day activities and the target groups' expectations from various points of view;

2. To develop methods of opinion inventory and result analysis, and to devise adequate forms for teacher participation in study day planning; and

3. To investigate the possibilities of a more systematic utilisation of study day activities for the study of didactic problems.

Scope:

The investigation includes teachers and head teachers from all three stages of the comprehensive school.

Methods:

Analysis of objectives: model development; literary studies; direct observations; expert conferences; teacher panels.

Opinion inventory: questionnaires; interviews

Method studies: a) Alternative models of study day material are produced and subjected to comparative study. b) Teacher reactions in the form of course evaluations are collected during regular study day activities where the problems of study day methodology are solved in a variety of ways.

Main findings:

The results gathered so far, mainly concern teachers' reactions to different types of study day activities. One conclusion has been that factors of communication psychology have been of great importance in determining the patterns of evaluation. Variations in teacher reactions to study day activities should, consequently, be explained in a much broader perspective than that of instructional methodology in a narrow sense.

Bibliographic references:

Eklund, Harald Enkät rörande informationen om Lgr 69 (Questionnaire concerning the information about the new curriculum of 1969). Linköping School of Education, 1971, 56 p + app. (In Swedish)

Erasmie, Kerstin AV-hjälpmedel och lärarfortbildning. En litteraturöversikt (AV aids and in-service training of teachers). Linköping School of Education, 1972, 24 p. (In Swedish)

18

Project title:	Language Development and Social Influences (The SOSP Project)
Carried out at:	The Department of Educational Research, Linköping School of Education, Box 3129, S-580 03 Linköping
Project leader:	Thord Erasmie
Number of researchers:	1 Other personnel: -
Starting date:	1972 Date of completion: 1973
Source of finance:	The Social Science Research Council. The Royal Swedish Academy of Sciences

Background and aims:

The language development of 147 children, 4-6½ years old, was studied in Norrköping in 1963. The children's language proficiency was tested individually by means of, among other things, tape recording of utterances, using pictures as incentive. Examples of variables studied are passive and active vocabulary, sentence length, and pronounciation. The findings were related to such variables as intelligence, constellation of siblings, educational level of parents, and the amount of books at home, the results showed that the language development clearly depends on the child's environment. The projected research will be a study of the present language proficiency of the 1963 sample of children. Its main purposes are:

1. To study the validity of the prognosis made on the basis of the 1963 test results; and

2. To determine to what extent the linguistic competence is related to the social milieu.

Scope:

147 subjects aged 13 to 16 years.

Methods:

Relevant data will be obtained by means of:

a) Document analyses (process variables)
b) Individual tests and group tests (product variables)
c) Questionnaires (product variables)

Main findings:

The final report of the project will be published in 1973. The first phase of the project, the 1963 studies, has been reported in the works listed below.

Bibliographic references:

All reports are in Swedish

Erasmie, Thord Språkutvecklingen under förskoleåldern (Language development during preschool age). Sociala meddelanden, No. 6-7, 1963, pp. 697-722.

Erasmie, Thord Studier rörande språkutvecklingen hos barn i åldern 4-6½ år (Studies on the language development of children aged 4-6½ years). Göteborg, 1964, 154 p.

Erasmie, Thord Barnets språkutveckling (The language development of the child). Stockholm, 1970, 154 p.

19

Project title:	Qualitative Evaluation of Teacher Training (The KUL-Ä Project)
Carried out at:	The Department of Educational Research, Linköping School of Education, Box 3129, S-580 03 Linköping
Project leader:	Thord Erasmie, Sixten Marklund
Number of researchers:	4 Other personnel: 1
Starting date:	1970 Date of completion: 1975
Source of finance:	The National Board of Education
Background and aims:	The research aims at a continuous qualitative evaluation of the teacher training system of the Swedish Schools of Education. The main purpose of the project is to try and establish to what extent the objectives stated in the curriculum of the special subject teacher training are reached. This overriding purpose implies goal and process analyses. The project aims furthermore at the development of methods for the study of training systems.
Scope:	The study includes those major Swedish Schools of Education which train special subject teachers (there are six such schools).
Methods:	Analysis of curricula and other official documents in order to determine society's intentions with regard to its teacher training. Different kinds of tests and questionnaires constructed on the basis of this analysis of objectives are employed. Further development of methods for goal and process analysis, and for construction of theoretical models for the study of training systems are also major tasks in this study.
Main findings:	The findings of the first out of six projects phases include a description of those natural science teacher trainees who started their training in the autumn term of 1971. Up to now data reported concerning those trainees include:

sex and age
social class
education prior to teacher training
connections with the teaching profession
solving and evaluation of test items in Education

Bibliographic references:

Erasmie, Thord Ämneslärarkandidater höstterminen 1971. Populationsbeskrivning av lärarkandidater med naturvetenskapliga ämnen antagna till lärarutbildning ht 1971 (Special subject teacher trainees autumn term 1971. Population description of natural science teacher trainees admitted to teacher training autumn term 1971). Linköping School of Education, 1972, 54 p. (In Swedish)

Eriksson, Karl-Henrik Lösning och bedömning av uppgifter i pedagogik. Konstruktion och preliminär utprövning av ett utvärderingsinstrument vid lärarhögskolornas ämneslärarlinjer. (Solving and evaluation of test items in Education. Construction and preliminary try-out of an instrument of evaluation at the special subject teacher branch of the Schools of Education). Linköping School of Education, 1972, 53 p + app. (In Swedish)

20

Project title: Study Situation and Vocational Career (The SYK Project)

Carried out at: The Department of Educational Research, Linköping School of Education, Box 3129, S-580 03 Linköping

Project leader: Karl Henrik Eriksson

Number of researchers: 1 Other personnel: Part time assistants

Starting date: 1971 Date of completion: 1973

Source of finance: The Social Science Research Council

Background and aims:

Two groups of 100 students each are studied. One (E) consists of students referred to psychological investigation and counselling (enlarged educational guidance) because of slow or no study progress in 1956 to 1959. The other (K) is a random selection of students at the same university, matriculated at the same time as the E group. E-group students answered a postal questionnaire regarding their study and vocational situation in 1961 and 1962. The two groups are followed-up with respect to their vocational situation in the first half

of 1972. Comparisons will be made between the counselling group (E) and the control group (K) in terms of certain base data, study breaks, examinations, vocational career, as far as such data are registered. The study focuses primarily on students planning a teaching career (the majority belonged to the Faculty of Philosophy), and those who have been advised to leave the university or take up another course of study.

Scope: In the E group about 50 variables are recorded, and in the K group about 20. These variables are related to each other, and also to results of previous research on university education.

Methods: The counselling was given at a psychological institution in cooperation with a physician, a psychiatrist, and employment services personnel. It was non-directive, on the whole, in the spirit of Carl Rogers. All students went through a personality test battery that was mainly diagnostic. A postal inquiry concerning study results, career plans, attitudes to counselling, etc. was administered some years after the counselling. Data on the further career of the students have been collected during the first half of 1972.

Main findings: The main findings are expected to answer questions about the careers of students who have, at a certain stage, experienced study difficulties and who have been referred, on a voluntary basis to counselling.

Bibliographic references:

Eriksson, Karl-Henrik Delinquency and personality deviations. Uppsala, 1957. (In English)

21

Project title: Investigation of the Development of Certain Reading, Writing and Other Communication Skills from 7 to 19 Years of Age (The LÄSK Project)

Carried out at: The Department of Educational Research, Linköping School of Education, Box 3129, S-580 03 Linköping

Project leader: Hans U. Grundin, Eve Malmquist

Number of researchers: 1.5 Other personnel: 0.5

Starting date: 1970 Date of completion: 1973-74

Source of finance: The National Board of Education

Background and aims:

The aims of the investigation are:

1. To describe in some detail the development from 7 to 19 years of age, i.e. in primary, secondary, and post-secondary education, of certain reading, writing, and other communication skills; especially with regard to the level and rate of development at different school stages.

2. To determine, on the basis of the description according to 1. above, to what extent the objectives stated in Swedish curricula for the school stages in question have been reached.

Scope:

About 120 classes in Linköping (slightly more than 100,000 inhabitants) with altogether 2,500 students are tested in this study, i.e. about 10 classes per grade level, special classes - like remedial classes - included.

Methods:

Preparatory work: Selection and construction of tests suited for the purposes of the study, and composition of series of test batteries, study of methods of description and analysis, which are suitable for the investigation of long-term development of skills.

Main investigation: Each student sample selected for this study will be tested twice with an interval of one year. The study is thus cross-sectional, although it has a design that may be called "quasilongitudinal". The development of the skills studied will be described by means of test results at different age levels, and will also be compared with the results of curriculum analyses. The study includes tests of the following skills: Reading accuracy, reading comprehension of various kinds, reading tasks in today's society), handwriting skill, spelling, productive writing, "practical writing skill" (see above)

Main findings:

A preliminary report of the first part of the study will be forthcoming in the autumn of 1972.

Bibliographic references:

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22

Project title:

Investigation Concerning the Effect of Individualized Reading and Writing Instruction at the Preschool Level

Carried out at:

The Department of Educational Research, Linköping School of Education, Box 3129, S-580 03 Linköping

Project leader:

Eve Malmquist

Number of researchers:	2	Other personnel:	6
Starting date:	1969	Date of completion:	1976

Source of finance: The National Board of Education

Background and aims:

Background: The Swedish debate concerning the establishment of a compulsory preschool or, alternatively, lowering of the age of compulsory school entrance from 7 to 6 years.

Aims: To study the effect of an individually adapted reading and writing instruction for six-year-old preschool children as compared to ordinary preschool work without reading or writing instruction. This effect is studied with regard to the development of the children's reading and writing skills up to the end of grade 3 of the comprehensive school. It is expected that the results of this study will contribute to the forming of a basis for decisions concerning instruction at the preschool level in the future.

Scope: In all, the study comprises about 550 children, 320 of whom are preschool children.

Methods: The experimental control group method is used in the study. Reading and writing instruction is given to 16 groups of 10 six-year-olds each (experimental group), recruited from four of the larger preschools in Linköping (a city with a little more than 100,000 inhabitants), while the corresponding number of six-year-olds in parallell groups at the same preschools (control group 1) are given no such instruction. The effect is evaluated through standardised reading and writing tests at the end of the preschool year and when the children have finished grades 1, 2 and 3 respectively of the comprehensive school. The instructional effect in the experimental group is also compared with the results of regular beginners' instruction in grade 1 of the comprehensive school, by means of the same tests administered to 8 classes in grade 1 (control group 2). The reading and writing instruction in the experimental group is given by trained and experienced primary school teachers. The children are taught in groups of ten for one full hour a day, which is equivalent to 7 lessons per week. (This should be compared to the 11 lessons per week devoted to the subject Swedish in grade 1). The instruction is adapted to the individual abilities of the children and is progressing - especially during the first term - at a slower rate than is usual in the beginners' instruction in grade 1 of the comprehensive school.

Main findings: A preliminary report of the results of the experimental instruction during the preschool year will be forthcoming in the autumn of 1972. The final report can be expected during the academic year 1975/76.

Bibliographic references: -

23

Project title:	Client Related Supervision
Carried out at:	The Institute of Education, University of Lund, Fack, S-220 07 Lund 7
Project leader:	Ingvar Johannesson, Mona Eriksson
Number of researchers:	0.25 Other personnel: 0.25
Starting date:	1971 Date of completion: 1975
Source of finance:	The Office of the Chancellor of the Swedish Universities
Background and aims:	The purpose of the project is to investigate a method of instruction which could be labeled client centered (related) supervision. In focus are situations which involve three persons, namely supervisor, student and client. This kind of instruction is for instance part of the graduate education of psychologists, physicians, dentists, medical gymnastics and social workers. The aim is to survey, compare and analyse "client related supervision" within and between different schools. A further purpose is to work out general and specific advice for supervisors.
Scope:	Pilot studies: 1. An extensive study surveying the institutes for practicum in applied psychology. 2. An intensive study conducted at one of the departments at the dental school.
Methods:	Interviews, questionnaires, direct observations.
Main findings:	-
Bibliographic references:	-

24

Project title:	Longitudinal Studies of Child Development in an Urban Community
Carried out at:	The Institute of Education, University of Lund, Fack, S-220 07 Lund 7
Project leader:	Ingvar Johannesson
Number of researchers:	0.5 Other personnel: -
Starting date:	1963 Date of completion: 1979
Source of finance:	The Magnus Bergvalls Foundation, The Nathorst Foundation
Background and aims:	At the Department of Pediatrics at the Karolinska Hospital a number of children have been studied from medical and psychological points of view, from birth during the preschools years and all through the school years. These data are complemented by investigations from a pedagogical point of view, the children's adjustment to the school environment, their school achievement and possible learning difficulties and adjustment problems.
Scope:	212 children born in Solna, as well as all other children in these children's classes.
Methods:	Individual tests: Intelligence tests and a number of projective tests: Machover, Sentence completion, Blacky Picture Test, Rorschach, Rosenzweig. Grouptests: Reading test, Arithemetical test, Intelligence test, Achievement tests and Concentration test. Attitude schedules and ratings by peers. Ratings by teachers.
Main findings:	The data collection is intended to be continued until the children reach the age of 20 years. Analysis of data from extreme groups have resulted in two licentiate-thesis. Other problems are under study: "Mental development related to social factors" and "Social attractiveness related to pupils' achievement and personality".
Bibliographic references:	-

25

Project title:	Integrating Handicapped Children in the Preschools
Carried out at:	The Institute of Education, University of Lund, Fack, S-220 07 Lund 7
Project leader:	Ingvar Johannesson
Number of researchers:	3 Other personnel: 1
Starting date	1971 Date of completion: 1973
Source of finance:	The National Social Welfare Board

Background and aims:

1. Studies of attitudes to handicapped children in preschool ages. What values and attitudes are prevalent? What are the attitudes of social institutions, teachers and personnel at preschools? What attitude do the parents have towards these problems? How do the parents of handicapped children feel about their situation?

2. Studies of children in day nurseries. What happens when handicapped children are integrated in an ordinary preschool? What are the attitudes of classmates towards children with a handicap? How do the handicapped children themselves react in this situation?

3. Possibilities and methods for changing attitudes and values.

Scope:

The study includes 21 preschool and day nurseries in Malmö and about 1,000 children.

Methods:

Data for analyses and study of the problems have been collected with the following research instruments:

1. Questionnaire to all parents in twelve day nurseries.

2. Observational studies and videotape recording of the activities in six day nurseries.

3. Sociometric interviews with the children in nine day nurseries.

4. Questionnaire to teachers and personnel in at all 21 day nurseries.

Main findings:

The data collection has to a great extent been carried out during the spring of 1972 and therefore analyses of data has not yet proceeded so far that any results can be presented.

Bibliographic references:

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26

Project title:	Handicapped Children Integrated in School-Classes
Carried out at:	The Institute of Education, University of Lund, Fack, S-220 07 Lund 7
Project leader:	Ingvar Johannesson
Number of researchers:	2.5 Other personnel: 1
Starting date:	1971 Date of completion: 1974
Source of finance:	The National Board of Education

Background and aims:

1. Studies of the handicapped pupils' experience of their school situation. Is the handicapped child well-adjusted to the school environment? What social status do they have among their classmates? How do they feel about their social relations? What self-concepts and self-evaluations do they have compared to those of other chidlren?

2. Studies of attitudes to handicapped children and to their integration in the class. How do the children feel about their handicapped classmates? How do parents feel about their handicapped children being integrated in normal classes? What is the attitude of the teachers in this respect?

3. Later on, methods and material for a more intensive cooperation between children in school classes will be constructed.

Scope:

The investigation includes 1,800 pupils from grades 1, 3, 4, 6, 7 and 8 from three schools in Helsingborg.

Methods:

Data for analysis and study of the problems have been collected with the following research instruments:
1. The pupils' experience of their school situation. a) Pupils' attitudes to school, (their well-being has been investigated by questionnaires). b) Social status and social relations are studied by sociometric tests. c) The pupils' self-esteem is studied by self-ratings. d) The pupils are rated by their head teachers.

2. Attitudes to handicapped children from people in their environment. a) Pupils' attitudes to different forms of handicap are studied by their reactions to descriptions of various handicaps. b) Parents attitudes are studied by questionnaires. c) Teachers attitudes are also studied by questionnaires.

Main findings:

The data collection has to the greatest extent been concentrated in the months March-May 1972. Analysis of data has not yet proceeded so far that any results can be presented.

Bibliographic references:

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27

Project title:	Integration of Measures for Development of Personality in the Pedagogical Work in the Special Schools for Mentally Retarded
Carried out at:	The Institute of Education, University of Lund, Fack, S-220 07 Lund 7
Project leader:	Ingrid Liljeroth, Ingvar Johannesson, Klas Guettler
Number of researchers:	1.7 Other personnel: 0.75
Starting date:	1970 Date of completion: 1975
Source of finance:	The National Board of Education

Background and aims:

Background: Experiences in connection with an earlier project: A method in the primary ADL-training in the special school for mentally retarded. Problem: From the perspective of psychodynamic theories of personality, mapping the building up of different structures of the individual's concept of identity and the processes through the milieu which are demanded for this building up. Studying and comparing the development of the mentally retarded person's identity. Drawing up programs and measures for creation of a milieu that is constructive for development of the personality of the mentally retarded.

Scope:

There are three parts of the work:

1. The theoretical work
2. The definition of a practical goal
3. Work with experimental groups

Methods:

Theoretical work: Theoretical studies of the development of identity of the individual from ego-psychology. The project is just now working with an integration of psycho-dynamic and cognitive theories, because the project needs to take into consideration the lack of cognitive development of the mentally retarded. We, too, look upon the problem from pedagogical and sociological theories. We have discussions with experts of the formulation of this integrated theory.

Practical goal: The theoretical work is the ground for the working out of a program where we define the practical goal. This is discussed with different people.

Experimental work: Participating observations based upon the program have been done in a small group of mentally retarded children. These are followed up in a work with the parents, in groups and individually. Observations of other, older, mentally retarded children of the same developmental level are made.

Evaluation: Process analysis

Main findings:

1. A theoretical program for the development of the identity.
2. A program of the practical goal based on the theories.
3. Results of the work during a year with the small children.

The discussions with our reference group who know the theories and who work with them in a practical sense have been important in our work. The program is not exclusively for the mentally retarded but a principal program which can be used in all mental hygiene situations. We therefore keep in contact with this group in order to be able to go outside the special school.

Bibliographic references: -

28

Project title: Choice of Courses in Secondary School

Carried out at: The Institute of Education, University of Lund, Fack, S-220 07 Lund 7

Project leader: Per Anders Westrin

Number of researchers: 0.3 Other personnel: -

Starting date: 1963 Date of completion: 1974

Source of finance: The Social Science Research Council.

Background and aims:

Background: Introduction of the new Swedish school system.

Purpose: 1. To observe how pupils choose different "lines" of study (courses) or choose to drop out when possible. 2. To relate these choices to the variables: marks, ability, school motivation, sex, social class. 3. To study the importance of peer acceptance for future adjustment in school society.

Problems: What relative importance has every independent variable for choices of lines (study outcomes) in terms of the criteria variables theoretical practical studies and completed discontinued studies. Is "social non-adjustment" predictable from early data about peer relationship?

Scope: Part studies in progress: Popularity in the class and adjustment to school and society. The relationships between different individual and environmental variables and type of course (line) in secondary school.

Methods

Questionnaires, intelligence tests and sociometric questionnaires, collecting of school marks and biographic data. Material gathered at four different occasions spread over six years (grades 7 and 9 in the comprehensive school, grades 1 and three in the secondary school). Statistical methods: Common test analytic methods. Multiple regression and discriminant analyses.

Main findings

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Bibliographic references:

Westrin, Per Anders Project Educational choice in school. University of Lund, 1966, 20 p. (In English)

Näslund, Ingrid & Ulander, Margareta Study of choice of course in comprehensive school particularly with regard to differences between Lund and Hässleholm. University of Lund, 1965, 25 p. (In English)

29

Project title:

Self-confrontation via Closed-circuit Television in Teacher Training

Carried out at:

The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23

Project leader:

Bernhard Bierschenk, Åke Bjerstedt, Bertil Gran

Number of researchers:

3

Other personnel: 1

Starting date:

1968

Date of completion: 1973

Source of finance:

The National Board of Education

Background and aims:

The development of CCTV-systems and video tape recorders has made possible new research methods for systematic and controlled studies of interaction processes. This study has been designed for investigating the effects on self-assessment of student teachers of, firstly, externally mediated self-confrontation processes (via CCTV and video recording) and secondly, dyadic confrontation processes (in the form of traditional tutoring). CCTV used as a subsystem in the educational technology of an integrated teacher training ought, among other things, to be able to help the trainee to arrive at a more objective and adequate assessment of his own and the pupils' actions. Variables involved in the study include: 1. Self-assessment, 2. Panel assessment, 3. Evaluation of one's own perceptions, 4. Comparisons of one's assessment and expert assessment, 5. Testing of new measuring instruments.

Scope: Student teachers (middle level line, second term) spring term 1969 and spring term 1970, in all 96 subjects. Pupils from the Experimental and Demonstration School at the Malmö School of Education, grade 4, ca. 360 pupils, 1 tutor and 3 educational experts (the panel).

Methods: The investigation has been designed as a p x q x r factorial experiment with repeated measurement in the last factor. The conditions of the experiment are Factor H: traditional tutoring (dyadic confrontation), h_1 tutoring, h_2 no tutoring; Factor T: externally mediated self-confrontation via CCTV/VR-techniques, t_1 self-confrontation, t_2 no self-confrontation; Factor U: teaching performance in micro-lessons of 15 min, u_1 micro-lesson 1, u_2 micro-lesson 2. The design will investigate whether there are any differences in the h, t and u levels and whether interaction effects occur. Measuring instruments: For this study a specially devised assessment and evaluation schedule, simultaneous comments, essay questions, personality tests and attitude schedules. The analyses of the data collected via rating scales have been made by means of ANOVA. Canonical correlation, precision and power estimations have been computed. A content analysis on the simultaneous comments has also been carried out.

Main findings: The experimental conditions have not, on the whole, led to main effects that are significant on the chosen level of significance or that can be regarded as constituting a conclusive basis for interpretation. The interaction effects that have been examined more closely imply that traditional tutorship in combination with micro-lessons have led to changes in the pupil dimension. Externally mediated self-confrontation via CCTV/VR in combination with micro-lessons on the other hand have led to changes within the ego-dimension. This result is reflected in both the subjects' self-assessment and in the average assessment of the educational experts.

Bibliographic references:

Bierschenk, Bernhard Att mäta subjekt-objekt-relationer i externt förmedlade självkonfrontationsprocesser via intern television: Presentation av ett kategorisystem. (Measuring subject-object-relations in externally mediated self-confrontation processes via closed circuit television). Malmö School of Education, 1971. (In Swedish)

Bierschenk, Bernhard Television as a technical aid in educational and psychological research: A bibliography (continued). Malmö School of Education, 1971, 27 p. (In English)

Bierschenk, Bernhard Television as a technical aid in education and in educational and psychological research: A bibliographic account of german literature. Malmö School of Education, 1971, 58 p (In English).

Bierschenk, Bernhard Självkonfrontation via intern television i lärarutbildningen. (Self confrontation via closed circuit television in teacher training). Lund, 1972. (With an English digest).

Bierschenk, Bernhard Självkonfrontation via intern television i lärarutbildningen: Test och testdata. (Self confrontation via closed circuit television in teacher training: Tests and data. Malmö School of Education, 1972. (In Swedish)

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Project title:	Student Democracy - Co-planning at Various Educational Levels
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23
Project leader:	Åke Bjerstedt, Magnhild Wetterström, Brigitte Valind, Pekka Idman
Number of researchers:	2 Other personnel: 1
Starting date:	1968-69 Date of completion: 1972
Source of finance:	The National Board of Education
Background and aims:	1. To map out some characteristic patterns of interaction, attitudes, and opinions associated with existing forms of student participation at various educational levels. 2. To study the connection between attitudes and opinions on the one hand and various background and individual variables on the other. 3. To examine some features of the innovation process when new procedures for co-planning are introduced.
Scope:	The project includes a number of sub-studies of varying scope, within three major sections of work (cf. below).
Methods:	The work of the project has been divided into three major parts. One part is concerned with school democracy on the levels of the junior and intermediate stages of the comprehensive school (Section I: grades 1-6); another deals with corresponding questions in the senior stage of the comprehensive school and in the secondary school (Section II: grades 7-12); while the third part studies problems concerning student democracy at the university level, with particular attention focussed on the teacher-training sector (Sector III: above grade 12). Instruments mainly used are: questionnaires interviews, personality tests, content analyses.

Main findings:

Because of the character of the project (including several sub-studies within three different sectors of work), it is not possible to summarize the results in a meaningful way. Those interested are referred to reports by Pekka Idman (for the teacher-training sector), by Brigitte and Lars Valind (for senior stage of the comprehensive school and the secondary school), and by Magnhild Wetterström (for junior and intermediate stages of the comprehensive school).

Bibliographic references:

Bjerstedt, Åke Student democracy - co-planning at various educational levels. School Research Newsletter, No. 18, 1971. (The National Board of Education, Stockholm). (In English).

Idman, Pekka Inställning till skoldemokrati bland skolledare. (Attitudes towards student democracy among school leaders). Malmö School of Education, 1970, 53 p + app. (In Swedish)

Idman, Pekka Samverkan mellan lärare och lärarkandidater i lärarutbildningen: Några opinionsdata. (Cooperation between teachers and student teachers in teacher training: Some data of opinions). Malmö School of Education, 1971, 101 p + app. (In Swedish).

Valind, Brigitte Förstaårserfarenheter från en försöksverksamhet med vidgade former för elevinflytande. (First-Year experiences of an experiment with extended student influence). Malmö School of Education, 1971, 75 p + app. (In Swedish)

Wetterström, Magnhild Skoldemokrati på låg- och mellanstadiet. Olika berörda gruppers syn på medinflytandeproblematiken. (School democracy in grades 1-6 in the comprehensive school: The problems of co-influence as seen by different groups of school personnel). Malmö School of Education, 1972, 69 p + app. (In Swedish)

Wetterström, Magnhild Skoldemokrati på låg- och mellanstadiet: Några lärargruppers syn på beslutsfattandet i en rad specifika klassrumssituationer. (School democracy in grades 1-6 in the comprehensive school: Decision-making in concrete classroom situations as seen by various teacher groups). Malmö School of Education, 1972, 74 p + app. (In Swedish)

31

Project title:	Creativity
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23
Project leader:	Åke Bjerstedt, Göran Hansson, Anneli Eriksson
Number of researchers:	2 Other personnel: 1
Starting date:	1968-69 Date of completion: 1972-73
Source of finance:	The National Board of Education

Background and aims:

1. To construct, adapt, and try out some tests for the measurement of creativity, and to study the relation between these tests and variations in age, intelligence, and personality.

2. To study some teacher and student behaviors that can potentially influence creativity.

3. To construct examples of potentially creativity-promoting student exercises, and to study certain effects of these.

Scope:

The project includes a series of sub-studies of varying scope, for example, an observation study (23 classes) and a study of study materials (24 classes).

Methods:

1. Construction and try-out of group tests.

2. Inventory of expert opinions by means of questionnaires.

3. Exploratory classroom studies (observations, questionnaires).

4. Construction and evaluation of student exercises. The test analysis includes various creativity instruments, personality tests etc. The observation study employs an observation schedule designed to chart the incidence of different types of cognitive activities in teaching. Potentially creativity-stimulating exercises have been constructed in "general subjects", mathematics and Swedish, and tried out in grade 5. These investigations consisted of: a battery of pretests at the start of the term, a period of instruction including the exercises constructed, and then a post-instruction test battery. Some classes had "creativity" exercises in all three school subjects, others only in one subject; in addition, a number of control classes were only given the tests. Reactions from teachers and students were collected as a basis for revisions of the study materials.

Main findings:

The results from the present project will partly be product-oriented; that is, we expect the project to produce certain tests and certain exercise materials together with systematic information about how these tests and materials have functioned

when applied to Swedish school children. Final results are planned to be reported during the budget year 1972-73. For preliminary information we may refer to the bibliography mentioned below.

Bibliographic references:

Bjerstedt, Åke Cooperation, independence, mental agility. Malmö School of Education, 1971, 21 p. (In English).

Bjerstedt, Åke Kreativität der Schule. (Creativity in the school). Malmö School of Education, 1971, 6 p. (In German).

Bjerstedt, Åke (Ed.) Kreativitet och kontroll. (Creativity and control). Malmö School of Education, 1972. (In Swedish).

Eriksson, Anneli Lärarenkäter om kreativitet i skolan. (Teacher opinions about creativity in school). Malmö School of Education, 1970, 63 p + app. (In Swedish)

32

Project title: Three Aspects of Social Development and Training in the Comprehensive School

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23

Project leader: Åke Bjerstedt, Barbro Lundquist (Section C), Elisabeth Jernryd (Sektion R), Eva Almgren (Section W)

Number of researchers: 3 Other personnel: 1

Starting date: 1967-68 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims:

Main aims: 1. To construct, adapt and try out measuring methods, which would make us better able to chart selected aspects of the social development of the students and which could be used in assessing attempts to promote this development ("goal area 1") 2. To chart, with the help of these methods, certain features of age development and to study some relations between these variables and personality characteristics ("goal area 2") 3. To explore selectively different possibilities of using educational influence to promote development in desired directions ("goal area 3"). A general comprehensive aim is to establish a more reliable basis for the evaluation of various attempts to further the school's goals in social training (by adding to our

basic knowledge, by improving our measuring instruments, and by studying certain effects of educational influence.

Scope: Students and teachers from various levels of the comprehensive school. The project includes a number of sub-studies of varying scope within three variable fields (cf. below)

Methods: The project has concentrated on three relatively different aspects of social development and training, namely: (a) "Cooperation" (Section S); (b) "Optimal resistance to authority and propaganda" (Section R); and (c) "World citizen responsibility" (Section W). The general strategy of the project has been to work on parallel lines with all three variable fields (with a research assistant in charge of each one) and then to start with the construction and evaluation of measuring instruments. From some points of view, this could be said to have resulted in three, partially independent, sub-projects. If we cross-tabulate the three general goal areas (1,2,3) described above with three chosen variable fields (C,R,W), we get a problem table with nine task-cells. This represents a very broad problem area, and the present project has to be limited to selected aspects. Within each variable field, the most common chronological approach has been: Step-wise construction and testing of methods - Charting with the aid of observation, questionnaires and/or objective tests - Explorations of educational influences.

Main findings: Due to the character of the project (including several sub-studies within three different work areas), it is not possible to summarize the results briefly in any meaningful way. Those interested are referred to reports by L-P. Lindholm, B. Lundquist and L. Wiechel (dealing with variable field C); by E. Jernryd (dealing with variable field R); and by N-O. Christoffersson and by B. Yebio (dealing with variable field W).

Bibliographic references:

Bjerstedt, Åke Cooperation, independence, mental agility. Malmö School of Education, 1971, 21 p. (In English)

Bjerstedt, Åke Soziale Entwicklung und Erziehung in der Grundschule. (Social development and education in the comprehensive school). Malmö School of Education, 1971, 8 p. (In German)

Christoffersson, Nils-Olof et al Världsmedborgarkunskap - världsmedborgaransvar. (World citizen knowledge - world citizen responsibility) Stockholm, Utbildningsförlaget, 1972, 167 p. (In Swedish).

Jernryd, Elisabeth Konstruktion och analys av mätinstrument med anknytning till variabeln "optimal auktoritets- och propagandaresistens". (Construction and analysis of measuring instruments related to the variable "optimum resistance to authority and propaganda"). Malmö School of Education, 1972, 103 p + app. (In Swedish).

Lindholm, Lena-Pia & Lundquist, Barbro Att bedöma samarbetsförmåga och självständighet (Assessing co-operation and independence)). Malmö School of Education, 1971, 80 p + app. (In Swedish)

Wiechel, Lennart Könsrollsperception som samverkansbarriär. (Perception of sex roles as a barrier to cooperation: An attempt to exert influence by two educational programs). Malmö School of Education, 1972, 71 p + app. (In Swedish)

Yebio, Bereket Measuring "world citizen responsibility". Malmö School of Education, 1970, 42 p + app. (In English)

33

Project title: Job Analyses as a Basis for Training and Advanced Study in the School Sector.

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23.

Project leader: Kurt Gestrelius

Number of researchers: 4 Other personnel: 2

Starting date: 1967 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims: In Sweden, demands have arisen for training of headmasters and assistant headmasters, lecturers in methodology and tutors. It is a project for the delineation of educational aims which can be proved relevant to the appointments in question. It is intended that the project include and attempt to find practical solutions to problems associated with the transformation of educational aims into educational content, and to work out recommendations for educational programmes for the appointments concerned.

Scope: 1. Headmasters and assistant headmasters of the comprehensive school.

2. Lecturers in methodology and tutors (teachers on long-term appointment).

Methods: Data collection:

1. Free explorative interviews (tape recorded)
2. Controlled interviews (tape recorded)
3. Special so-called "future material" has been collected.

Content analysis:

1. The content of the interviews was transformed into units describing work situations, and it was controlled to what extent the analysis had been carried out objectively.

2. Classification of the work situation and control of coder agreement under different conditions.

Job description:

1. Surveys of job descriptions.

2. Detail analyses.

Analysis of the need of training:

1. A part of the categorized material has been selected at random for systematic evaluation of a number of appointees and members of their contact groups.

2. The results of the evaluations were analysed.

Main findings:

1. Category for the appointments concerned.

2. The distributions of the information units over the different parts of the category systems.

3. The work situations which primarily need training.

Bibliographic references:

All reports are in Swedish.

Alehammar, Sten Förenklad metod för urval av befattningshavare med regionalt betingade arbetsuppgifter. (Simplified method of sampling office-holders with region specific tasks). Malmö School of Education, 1969, 16 p + app.

Alehammar, Sten (Ed.) Några iakttagelser vid konstruktion och genomförande av försökskurs för skolledare. (Construction and execution of a pilot course for principals: Some observations). Malmö School of Education, 1971, 34 p + app.

Gestrelius, Kurt Utbildningsplanering med befattningsanalytiska metoder. (The planning of instruction utilizing job-analytic techniques). Lund, Uniskol, 1970, 104 p.

Gestrelius, Kurt Exempel på metod för tillförlitlighetskontroll vid analys av informationsmaterial. (Control methods for use in analyzing complex verbal material: Examples). Malmö School of Education, 1970.

Gestrelius, Kurt Kategorisering av informationsmaterial vid befattningsanalys: Metodexempel. (Content categorization of interview data used in job analysis: Examples of method). Malmö School of Education, 1971, 33 p.

Gestrelius, Kurt Lärarutbildares arbetsuppgifter, Del 1: Undersökningsmetoder, övergripande befattningsbeskrivningar samt sammanfattningar av detaljanalyser. (The duties of teacher trainers, Part 1: Methods of research, surveys of job descriptions and summaries of detail analyses). Malmö School of Education, 1971, 115 p.

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Project title:	Education in Teacher Training Based on Job Analysis of Teachers (Project PIL)
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack. S-200 45 Malmö 23
Project leader:	Bertil Gran
Number of researchers:	4.5 Other personnel: 1
Starting date:	1968-69 Date of completion: 1972-73
Source of finance:	The National Board of Education
Background and aims:	1. To select, with the aid of job analysis of teachers, those functions of the teaching profession, which demand most training. 2. To develop and try out new programs for teacher training. 3. To analyze the usefulness of available teaching aids in teacher training and develop new aids.
Scope:	Students in schools of education.
Methods:	1. Job analysis by (a) Text analysis of "official texts". (b) Interviews. (c) Critical-incident studies. (d) Questionnaires to school leaders and "teachers for teachers". (e) Systematic observations of new teacher roles. 2. Experimental tryout of (a) New programs for pupil care. (b) Programs for role-playing. (c) Cooperation within teacher training. (d) New methods for evaluation. 3. Analysis of teaching.
Main findings:	The job analysis indicates that problems of child welfare and communication put heavy demands on teachers, but also that the teacher training is not satisfactory in these two respects. It is possible to describe the teachers profession by a factorial structure, where five different clusters are identified. The demands on the teachers are different as specified by different groups of people but also in different official documents.
Bibliographic references:	Gran, Bertil Svensk lärarutbildning (Teacher training in Sweden). Malmö School of Education, 1969. (In Swedish).

Löfqvist, Gert Analys av officiella texter för bestämning av kraven på ämneslärarbefattningen. (An analysis of official texts with a view to determining the qualifications necessary for grammar school teachers). Malmö School of Education, 1969.

Löfqvist, Gert Arbets- och utbildningskrav för ämneslärarkandidater. (Demands made on the subject teacher in the school situation). Malmö School of Education, 1971.

Heiling, Gunnar et al Lågstadielärares fortbildningsbehov i pedagogisk-psykologiska frågor. (The needs for in-service training for primary school teachers). Malmö School of Education, 1972, 53 p + app. (In Swedish)

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Project title:	The School Milieu Project
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23
Project leader:	Bertil Gran, Olle Engquist
Number of researchers:	2 — Other personnel: 0.25
Starting date:	1970-71 — Date of completion: Not fixed
Source of finance:	The National Board of Education
Background and aims:	The project deals with the open-plan schools, known as "samskap" schools, in the southwest region of Sweden. The main aim of the investigation is to test the ideas lying behind the layout of the school buildings. The first step has been to define the problem more closely and to develop the measuring instruments. In a second study the project also deals with the effects on the cognitive and socio-emotional development of the pupils.
Scope:	Eight open-plan schools.
Methods:	Used: 1. Interviews with school leaders and with non-teaching staff. 2. Questionnaires to teachers and pupils. 3. Systematic observations. Planned: 4. Cognitive tests. 5. Personality tests.

Main findings: One of the more important results of the analyses is that they have shown what big differences there are between the schools in the lay-out of the buildings, in pedagogic activity, and in the attitudes of teachers and pupils. The attitudes have mainly been positive, and negative points of view have largely concerned specific aspects.

The study is so far a pilot study.

Bibliographic references:

Gran, Bertil (Ed.) De öppna skolorna i Malmöregionen. Problembelysning och tvärvetenskaplig metodutveckling. (Open-plan schools in the Malmö region. Problems and interdisciplinary development of methods). Malmö School of Education, 1972, 217 p + app. (In Swedish. A summary in English is available)

36

Project title: A Study of Closed-Circuit TV, Mainly As a Sub-system of Educational Technology within Integrated Teacher Training (Project ITV-Malmö)

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23.

Project leader: Bertil Gran, Bernhard Bierschenk and Åke Bjerstedt.

Number of researchers: 2 Other personnel: 1

Starting date: 1969/70 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: During the last years expensive use has been made of CCTV in teacher training. CCTV programs and self-confrontation by means of video tape teaching are used. The purpose of the project: (a) To develop a model for systematic construction and evaluation of CCTV programs, and (b) to study a number of special questions, e.g. the effect on trainees of self-confrontation via video recorded micro-teaching and the construction of video recorded simulator tests for diagnosis and decision practice in teacher training.

Scope: Student teachers in schools of education.

Methods: The project-sector "Self-confrontation in teacher training" is described in a separate project description.

For the analysis of CCTV as a sub-system the following methods are used:

1. Interviews with teacher trainers and teacher students.
2. Questionnaires to teacher trainers and students.
3. Analyses of user needs.

Main findings: The system analysis is in progress. The analysis of the simulator tests shows that most of the test situations are able to discriminate between "constructive problem solution" and "authoritarian problem solution". There are differences between reactions on video recorded situations and written situations.

Bibliographic references:

Bjerstedt, Åke CCTV and video recording as "observation amplifiers" in teacher training. Educational Television International, No. 1, 1967, pp. 300-312. (In English).

Bjerstedt, Åke Critical decision situations on video tape: An approach to the exploration of teachers' interaction tendencies. Malmö School of Education, 1969, 22 p. (In English)

Engfeldt, Per-Henrik Ett videobandat simulatortest för studium av interaktionstendenser i lärar-elev-situationer. (A video recorded simulator test for studying interaction tendencies in teacher/pupil situations). Malmö School of Education, 1971. (In Swedish).

37

Project title: Preschool Education Integrated with Primary School Education (Project FÖL)

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23

Project leader: Birgitta Gran

Number of researchers: 2 Other personnel: 2

Starting date: 1970 Date of completion: 1977

Source of finance: The National Board of Education

Background and aims:

Methods and curriculum in preschool and the junior stage in the comprehensive school, respectively, differ at the present time. This may result in difficulties for children when they pass from one stage to another. Teachers may also notice difficulties. There is need for providing activities and stimuli adjusted to the child's level of maturity and development. There is also need for providing as early as possible remedial resources to children with difficulties and handicaps.

The general aims of the project are:

1. Developing a new and a more structured curriculum for preschool.

2. An organizational experiment worked at gradually: A. Developing collaboration between preschool and grade 1 junior stage, a collaboration dealing with methods and curriculum. B. On the basis of experience with collaboration, an attempt to develop collaboration between grade 2 and grade 3, that is constructing an ungraded school covering four years.

3. A social-psychological experiment for children suffering from social handicaps, assisting them with remedial resources.

Scope:

Constructing the preschool curriculum: 15 experts. Evaluation of this: 30 teacher students, 25 preschool teacher trainers and 25 preschool teachers using the programs among about 500 children. Collaboration: 10 teachers developing and trying out forms for collaboration.

Methods:

During the spring of 1971, a relatively structured curriculum for preschool was worked out by experts and has resulted in appr. 200 concrete descriptions of different educational situations for preschool. This material is also a ground for collaboration with the junior stage. During the school year 1971/72 this curriculum has been evaluated in different ways. At present, the experts are working with revisions and new constructions on the basis of these evaluations. A revised edition will be available in September 1972.

The collaboration between preschool and junior stage has been developed and tried out. The forms of this collaboration are partly decided by such factors as the distances between the buildings, the teachers' planning and the structure of the child groups. The evaluation has been worked out by means of interviews with the teachers and observations among the children.

During the next school year (1972/73) this collaboration experiment will include many more teachers and children. The evaluation will be made by interviews with the teachers, observations, and testings.

Main findings:

Until now there are only preliminary results. These indicate that the new preschool curriculum is a valuable aid for the preschool teacher working with educational stimulation among the preschool children. This curriculum is also the ground

for collaboration between the stages. In this collaboration the teachers learn about the stages respectively, concerning methods and curriculum. In districts where the preschool children and school children have worked together, there have been possibilities for giving the children activities suited to their interests and level of maturity. The attitudes among the teachers concerning this collaboration have been positive. Some difficulties are reported, for example, problems concerning time schedules, especially when the distance between the preschool building and the school building is great; differences between school districts and preschool districts in the recruiting of children, that is, a child may belong to one district during the preschool period and then attend another school when starting the compulsory school period.

Bibliographic references: -

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Project title: The Effect of Introducing Set Theory in the Mathematics Curriculum for Grades 1-9

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23

Project leader: Ingrid Holmberg

Number of researchers: 0.5 Other personnel: -

Starting date: 1972 Date of completion: 1973

Source of finance: The National Board of Education

Background and aims: In 1969, a new curriculum was introduced in Swedish schools. Set theory was introduced in mathematics from grade 1. This study aims at investigating the differences in performance, if any, in mathematics, conception of number and attitudes toward mathematics between classes with the old curriculum in mathematics and classes with the new one.

Scope: n = 1,200; 400 pupils from grade 3, 6 and 9.

Methods: Two groups of pupils, socially and intellectually comparable, have been trained in mathematics, one group by the curriculum of 1962, the other by the curriculum of 1969.

Changes in:

1. Conception of number
2. Knowledge of mathematics
3. Attitudes toward mathematics

as a function of curriculum, will be investigated. The results for the pupils will be subjected to analysis of variance.

Main findings: -

Bibliographic references: -

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Project title: Individualized Mathematics Instruction (Project IMU)

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23

Project leader: Inger Larsson, Bernt Larsson

Number of researchers: 3.5 Other personnel: 2.5

Starting date: 1964 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims:

1. To draw up and test self-instructional teaching material in mathematics,

2. To test suitable teaching methods for the use of this material,

3. To discover in what way the pupils should be grouped and the teachers used in order to obtain maximum effect from the material and the method.

4. To measure, with the aid of the constructed material, the effects of entirely individualized instruction.

Scope: Studies in grades 4-6 (pupils aged 11-13), 7-9 (13-16) in the comprehensive school and in the secondary school (16-18). Approx. 20,000 pupils, 700 teachers, 100 school administrators, 100 teacher assistants.

Methods:

Construction of self-instructional material in mathematics: IMU Senior stage, which covers grades 7-9 in the comprehensive school. Field testing of this material. Expert groups working on goal analyses and the construction of tests related to these goal analyses. Total investigation of all groups: pupils, teachers, school administrators and teacher assistants. Simple random sampling of pupils from the population from the treatment of data, population investigations of other groups. Data gathering through questionnaires, tests (diagnostic, prognostic and goal related) intelligence tests from the pupils. Data gathering through questionnaires and interviews from other research groups. Statistical analyses through p x q factorial ANOVA and through correlational studies.

Main findings:

Reports from the entire research will be published in autumn 1972. All data are gathered and all reports are mimeographed in preliminary versions.

Bibliographic references:

All reports are in Swedish.

Öreberg, Curt Individualiserad matematikundervisning. Rapport från pågående försök. (Individualized mathematics instruction. A report from a current project). Malmö School of Education 1964, 41 p.

Öreberg, Curt (Ed.) IMU-projektet: Målbeskrivningar för ett självinstruerande studiematerial i matematik för grundskolans högstadium. (The IMU Project: Goal descriptions for a self-instructional teaching aid in mathematics for grades 7-9 in the comprehensive school). Malmö School of Education, 1966, 70 p.

Jivén, Lars Magnus & Öreberg, Curt IMU-projektet: Preliminär plan för effektundersökning på grundskolans högstadium 1968-1971. (The IMU Project: Preliminary plans for an investigation of the effects in grades 7-9 in the comprehensive school). Malmö School of Education, 1968, 16 p + app.

Jivén, Lars Magnus IMU-projektet: Försök med utprövning av IMU-systemet på grundskolans högstadium. (The IMU Project: A report concerning investigations of the effects of the IMU-system). Malmö School of Education, 1968, 36 p.

Hellström, Leif IMU-projektet: Försök med individualiserad matematikundervisning på grundskolans högstadium. (The IMU Project: A study on individualized mathematics instruction in grades 4-6 of the comprehensive school). Malmö School of Education, 1972, 76 p + app.

40

Project title:	Composition in the Intermediate Stage of the Comprehensive School (Project FRIS)
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23
Project leader:	Ebbe Lindell
Number of researchers:	2 Other personnel: 2
Starting date:	1970 Date of completion: 1975
Source of finance:	The National Board of Education
Background and aims:	The project seeks to find ways of objectively measuring the quality of free writing. With the aid of these instruments the development of writing ability during the intermediate stage is studied. The measuring instruments should make it possible to study with greater precision the effect of various methods of stimulation. The correlation between free writing and variables such as intelligence, socio-economic environment, personality and general creativity forms part of the investigation.
Scope:	The project is a follow-up study of about 200 pupils from different districts in Malmö during a three-year period. The problems stated above are studied in eight data collections.
Methods:	The pupils' free writing is graded and judged with the aid of objective measuring instruments, which in their turn are validated with respect to the grades. The variables are mapped in comparative studies, especially between different socio-economic environments.
Main findings:	-
Bibliographic references:	-

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Project title:	Instructional Methods, German (Project UMT)
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23
Project leader:	Horst Löfgren
Number of researchers:	3 Other personnel: 6
Starting date:	1965 Date of completion: 1973
Source of finance:	The National Board of Education

Background and aims:

The UMT project started in 1965 and is planned to continue until 1973, and it is a part of the educational research and development work led by the National Board of Education's Research Planning Bureau (L 3). The project has a double aim:

1. To investigate scientifically the goals and methods of foreign language teaching, and

2. on the basis of this research construct a controlled system of study materials for teaching German in the Swedish comprehensive school.

Scope:

See below.

Methods:

The research work and the construction of study materials in the UMT project have been made possible by teamwork involving scientists, language experts, methodologists, authors, publishers, teachers, and pupils. The researchers and the authors transform the results from the basic research into directions for combination and construction of study materials. This material is tested and the revisory process is dependent on pupil achievement and teacher reaction. The project work follows four headlines:

1. Analysis of prerequisites: goals, pupils and language.
2. Analysis of the educational process in experiments on method.
3. Analysis of products with tests of various kinds.
4. Construction of study materials in accordance with the results obtained from points 1-3.

Main findings:

Among the results can be mentioned:

1. Students using the UMT project's study material achieved better results than students using other existing study materials.

2. Both teachers' and students' attitudes towards the UMT project study material were found to be positive.

3. The substantial variations in the achievements of different

classes point to the importance of other relevant factors than the study material.

4. A large part of the language proficiency can be described by the following three language factors: vocabulary and grammar, intelligence, and pronounciation.

5. The students should have access to textbooks from the very beginning of their German lessons.

6. The use of grammatical paradigms and explanations is beneficial.

7. The bilingual glossaries are more effective than the monolingual.

8. The tolerance studies show that wrong choice of words is followed by misinterpretations. On the other hand there are no, or just small, difficulties in interpreting sentences containing grammatical errors.

Bibliographic references:

All reports except the last mentioned are in Swedish.

Engh, Bertil En toleransundersökning: Tyska elever tolkar svenska elevers språkfel. (A tolerance study: German pupils "interpret" linguistic errors made by Swedish pupils). Malmö School of Education, 1971, 32 p.

Hall, Per Första årets tyska: Elev- och lärarattityder till UMT-projektets läromedel. (The first year of studying the German language: Pupils' and teachers' attitudes towards study materials, constructed by the UMT Project). Malmö School of Education, 1971, 97 p.

Lindell, Ebbe Främmande språk i grundskolan: Metodförsök, lärarerfarenheter och elevattityder. (Foreign languages in the comprehensive school: Method experiments, teachers' experiences and pupils' attitudes). Lund, Gleerups, 1971, 160 p.

Löfgren, Horst Mätningar av språkfärdighet i tyska: En undersökning på elever i årskurs 9. (Measuring proficiency in the German language: A study of pupils in grade 9 of the comprehensive school). Malmö School of Education, 1972, 62 p.

Löfgren, Horst Effektmätning av UMT-projektets undervisningssystem "Deutsch". (Measuring the effects of the UMT project's teaching system "Deutsch"). Malmö School of Education, 1972, 93 p.

Löfgren, Horst Mätningar av språkfärdighet: En hypotesprövande undersökning av en faktorstruktur. (Measuring language proficiency: A study testing hypotheses concerning a factor structure). Malmö School of Education, 1971, 14 p.

Petersson, Lennart Några elever talar tyska: Feltyper och felfrekvenser i årskurs 9. (Some pupils speak German: A frequency study of the types of errors made by pupils in grade 9 of the comprehensive school). Malmö School of Education, 1971, 14 p.

Teschner, W-P. Wissenschaftliche Zielanalyse als Kern der Curriculumentwicklung. (Goal analysis on scientific basis for the development of curricula). Malmö School of Education, 1971, 42 p. (In German)

42

Project title:	Varying Sizes of Groups and Team Teaching (Project VGL)
Carried out at:	The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23
Project leader:	Göte Rudvall, Olle Engquist, Olof Magne
Number of researchers:	2 Other personnel: 0.5
Starting date:	1969 Date of completion: 1973
Source of finance:	The National Board of Education
Background and aims:	This research and development project is being conducted in cooperation with the Group for Educational Development in the Malmö Region. Its general purpose is to evaluate experiments with flexible grouping and team teaching which were started in Malmö at the beginning of the 1960's. The research project has concentrated on grades 7-9 in the comprehensivs school, but some studies have also been carried out in two secondary schools.
Scope:	Eight comprehensive schools are studied with regard to "rigidity" or "flexibility" in organization and layout. Two classes in each school have been selected.
Methods:	Interviews, questionnaires and observations are used to determine the degree of organizational rigidity or flexibility in the structure of the eight comprehensive schools. Schools built in a traditional way are compared with two open-plan schools. The development of the pupils in randomly selected classes is followed during a period of three years with regard to changes in aptitude, attitude and personality. The methods used here include intelligence tests, questionnaires and standardized tests, interest inventories and personality tests. In the two secondary schools, only teacher and pupil questionnaires have been used.

Main findings: Up to now, the project has been at an exploratory stage, in which teacher and pupil questionnaires and interviews have illustrated a wide variety of the problems that arise when certain rigid organizational patterns are broken up. One of the two secondary schools has reported mainly positive experiences from an experimental relaxation of the attendance rules. In the other school, the results of the VGL experiments have revealed organizational difficulties and feelings of insufficient contact between teachers and pupils. The main piece of research, which is a longitudinal investigation of the development of the pupils in comprehensive schools with different types of organization, is still at its initial stage. For this reason no data have yet been presented. In developing methods for these studies, there has been collaboration with another project - "Development of curricula for 'Samskap schools'". Certain preliminary data concerning two open plan schools for grades 7-9 have been published. However, these data are so inconclusive that they are only suitable for use in formulating hypotheses for further investigations. The investigations carried out so far have formed the basis for the publications listed below.

Bibliographic references:

All reports are in Swedish.

Gran, Bertil (Ed.) De öppna skolorna i Malmöregionen: Problembelysning och tvärvetenskaplig metodutveckling. (The open-plan schools in the Malmö region: Problems and interdisciplinary development of methods). Malmö School of Education, 1972, 217 p + app.

Rudvall, Göte (Ed.) Flexibel skola - flexibel undervisning: En symposierapport. (Flexible school - flexible teaching: A report from a symposium). Malmö School of Education, 1971, 131 p.

Rudvall, Göte (Ed.) Flexibel skola - flexibel undervisning. En informations- och debattskrift. (Flexible school - flexible teaching: Information and discussion). Stockholm, Utbildningsförlaget, 1972, 95 p.

43

Project title: Problems of Vocational Education - Training the Capa ity of Assessment and Problem Solving

Carried out at: The Department of Educational and Psychological Research, Malmö School of Education, Fack, S-200 45 Malmö 23

Project leader: Lars Sjödahl

Number of researchers:	2	Other personnel:	1
Starting date:	1969	Date of completion:	1973

Source of finance: The National Board of Education

Background and aims: The principal, more long-term aim of the project is to create a model for vocational education, its construction, carrying out and revision. The project has been concentrated on the nursing sector, the aim being to construct a method-material system which can be used in the training of nurses to develop the trainees' capacity for assessment and problem solving.

Scope: Current task analysis will involve 170 nurses.

Methods:

1. Limited task analysis - definition of aims.
2. Construction of an instructional aid utilizing actual cases.
3. Construction and standardization of attitude instruments.
4. Construction and standardization of measuring instruments in the form of actual cases.
5. Testing and revision of the method and material system.
6. Effect investigations using a control group procedure.

Main findings: A content-analysis of the basic training curriculum for nursing has been carried out. The results indicate that the psychological aspect of patient care is mentioned to a far greater extent in that part of the curriculum dealing with the theoretical subjects than in the part describing the practical subjects. A method is proposed for estimating agreement between two independent analyses.

Bibliographic references:

Sjödahl, Lars Analys av "läroplan för grundutbildning av sjuksköterskor (sjukskötare)". (Content-analysis of basic training curriculum for nursing). Malmö School of Education, 1971, 87 p. (In Swedish).

44

Project title: A Study of Needs and Obstacles in Adult Education

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Birger Bromsjö, Kjell Rubensson

Number of researchers:	2	Other personnel:	1
Starting date:	1968-69	Date of completion:	1974-75

Source of finance: The National Board of Education, The Ministry of Education

Background and aims:

When the Government and other bodies planned to expand the investments in different kinds of adult education, there was a need for a comprehensive description and analysis of the total output of adult education courses. Sponsors target groups, subject matter, methods and the total participation in the programmes had never been mapped out before. This stage, the first step, was finished in 1971 with the report "Adult Education in Sweden. A structural overview".

The aim of the second step is: to map out the potential interest and the obstacles in adult education, among people with a low education. The interest and the obstacles will be related to: a) data concerning the social background and earlier experiences, b) the actual situation of life and the needs a person experiences in his vocational role, his leisure-time role, family role and the role he plays in society. The offering of courses in adult education in the region and current labour market. c) attitudes towards adult education.

Scope:

Step 1 All types of programmes in adult education in Sweden.

Step 2 Pilot study in the autumn of 1972 with 600 individuals. The main survey is planned for autumn 1973 with 3,000 individuals.

Methods:

Step 1 A questionnaire survey of companies with more than 500 employees. Other forms of adult education was mapped out through annual reports and other materials from all types of sponsors, supplemented by interviews.

Step 2 Data will be collected through interviews. The interviews consist of three parts: a) interview questionnaire concerning motives b) questionnaire concerning motives c) questionnaire concerning obstacles. The respondent will mark the answers on b and c after instruction from the interviewer. The programme offerings will be mapped through questionnaires to the local sponsors. Data concerning the labour market will be collected from the authorities.

Main findings:

Step 1 A classification of adult education in 10 main categories with data concerning background, scope, subjects and methods. Because of differences in the data, only approximate estimations of the total participation are given, between 20 and 25 million study days during 1967/68 and between 25 and 30 million during 1970.

Bibliographic references:

Eliasson, Torsten & Höglund, Bengt Vuxenutbildning i Sverige. En strukturell översikt. (Adult education in Sweden. A structural overview). Stockholm, The Ministry of Education, 1971, 447 p. (In Swedish)

45

Project title:	Follow-up Study by the National Board of Education and the School of Education of the maturity Processes in Pupils aged 9-16 Years (Project SLU)
Carried out at:	The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34
Project leader:	Agneta Brucefors, Bengt-Olov Ljung
Number of researchers:	2 Other personnel: 2
Starting date:	1964 Date of completion: 1974
Source of finance:	The National Board of Education

Background and aims:

The SLU project is a longitudinal study of parts of the physical and mental development of twins and coevals. The chief aim of the study is to relate the two trends of development to each other. Another important aim of the study is to construct new growth and development charts for the height and weight from the ages of 9 to 16.

The large size of the twin groups in this investigation should provide certain possibilities to more closely study the relationship between environment and genetical background of growth of both physical and mental factors.

Scope:

The investigation began in the spring of 1964, when most of the students in the sample were in grade 3 (age 9). The sample was composed of 91 monozygotes, 135 dizygotes of the same sex, 97 dizygotes of opposite sex, and 1,193 same-aged classmates. The students came from 40 cities or towns in Sweden.

Methods:

The height and weight measurements as well as an estimation of the development of secondary sex characteristics has been carried out every half-year from grade 3 up to and including grade 9. The age of which menarche occured was also noted for the girls. The students have completed a test (Kuup) which measures concentration, perseverance, attention and performance every year from grade 3 up to and including grade 6. For the twins in the sample the Kuup-test was also administrered in grade 7. The results of the following centrally administered standard examinations for the students in the sample were collected, together with their own estimations of results: grade 3, Swedish and mathematics; grade 6, mathematics. In addition, the opinions of the teachers for the students in grades 3 and 6 were collected, as well as for the subjects of Swedish, English and Mathematics in grade 6.

A so-called multi-dimensional test, which measures certain factors important in the psychological puberty crisis, and a sociometric test were administered in grades 4 and 6.

In grade 5, parts of an aptitude test (DBA) were given to the sample under investigation. Completion of data collection is currently being carried out, in particular, height and weight measurements for those boys who have continued on to secondary school. In addition, some information on the socio-economical background of the students has been collected.

Main findings: -

Bibliographic references:

Norinder, Yngve: De uppväxande i det föränderliga samhället - förändras inte också de? (Adolescents in a changing society - aren't they also changing?) Skolperspektiv, No. 2, 1965, pp. 3-7. (In Swedish)

Norinder, Yngve Follow-up study in growth of twins and coevals. Report to the "Centre International de l'Enfance" at the Growth Seminar in Stockholm, June 22, 1966, 8 p. (In English).

Norinder, Yngve On status and developmental rate in certain human characteristics. Preliminary findings from a follow-up study of twins and unrelated coevals during their pre-adolescent years with some educational implications. Stockholm School of Education, 1971, 23 p. (In English).

Brucefors, Agneta SLU-projektet 1964-1971. En kortfattad översikt över Skolöverstyrelsens och lärarhögskolans studie av utvecklings- och mognadsförloppet hos växande (9-16 år). [The SLU Project 1964-1971. A brief survey by the National Board of Education and the Stockholm School of Education of the development and maturity process in adolescents (9.16 years)]. Stockholm School of Education, 1972, 25 p. (In Swedish).

46

Project title: The Västmanland Investigation (The VMU Project)

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Yngve Carlsten, Bengt-Olov Ljung

Number of researchers: 4 Other personnel: 1

Starting date: 1970 Date of completion: 1974

Source of finance:

The National Board of Education

Background and aims:

The Västmanland investigation is primarily based on the so-called secondary school prognosis investigation (GPU). Overall problems covered include an analysis of educational and vocational routes. Specific problems include those connected with the transition via upper levels of comprehensive school to secondary school and via secondary school to university and college, the socio-economic structure of school classes, the educational problems of adults and immigrants and the position of low performers. As regards the latter, particular attention is being devoted to pupils who have proceeded directly to gainful employment.

Scope:

All pupils in the county of Västmanland belonging to grade 9 in the school year 1965/66 (ca. 3,700 pupils in all). For presentation of completed substudies reference is made to the bibliographic information. In addition, a number of substudies are planned as well as continuous, long-range follow-ups of the year groups.

Methods:

Existing data referring, among other things, to school careers in the upper level of the comprehensive school include: marks, options, course preferences, examination and test results, socio-economic background and various questionnaire data. Further contact with this age group has so far made it possible to follow their progress up to the age of 21. During 1970/71, questionnaire data were collected concerning personal instances of the use and experience of education at the upper level of the comprehensive school, further education and vocational activities.

Main findings:

The results of the investigation have appeared in the form of a number of reports, dealing with substudies, and these are given in the bibliographic information. In addition, problem areas which are currently under study and for which no reports have yet been issued are listed below along with the expected completion dates.

Differences in socio-economic structure in school classes and possible resulting effects (June, 1972).

Educable mentally retarded students in a normal class.

Student absence in the comprehensive school and secondary schools (Spetember, 1972).

Occupations and education for students who finished school after grade 9 of the comprehensive school. (November, 1972).

Study-line choices and choices of occupation. A follow-up of a year group of students from the county of Västmanland 4 years after the completion of the comprehensive school. (November, 1972).

Education and occupational choices for a year group of students within the county of Västmanland whose parents are immigrants. (November, 1972).

Bibliographic references:

All reports are in Swedish

Ljung, Bengt-Olov Utvärdering genom uppföljning - en institutionsprofil. Planering inom och i anslutning till Västmanlandsundersökningen inför petitaarbetet till budgetåret 1972/73. (Evaluation by means of follow-up - the profile of an institution). Stockholm School of Education, 1971, 21 p.

Carlsten, Yngve Betyg och provresultat i årskurs 9. Relationer mellan betyg och resultat på kunskapsprov och i intelligenstest för olika elevgrupper på de engelskläsande linjerna i grundskolans åk 9. (Marks and test results in grade 9 of the comprehensive school. The relationship between marks and the results of achievement tests and intelligence tests among different groups of pupils studying English in grade 9 of the comprehensive school). Stockholm School of Education, 1971, 174 p.

Carlsten, Yngve, & Jansson, Sven, & Ljung, Bengt-Olov Urval till universitet och högskolor. Studerandegruppens sociala härkomst vid rekrytering från fackskola och gymnasium. (Recruitment to university and university level colleges. The pupils' social background at the recruitment from continuation school and secondary school). Stockholm School of Education, 1972, 25 p + app.

Hansson, Gustaf & Lundman, Lars Studieavbrott och förändrad studieinriktning i gymnasium och fackskola. (Dropouts and changed course of study in the secondary school and in the continuation school). Stockholm School of Education, 1972, 132 p.

Jansson, Sven & Nordlund, Gerhard Västmanlandsundersökningens kunskapsprov i årskurs 9. Konstruktion, analys och genomförande. (Achievement tests for grade 9 in the comprehensive school used in the Västmanland Investigation. Construction, analysis and implementation.) Stockholm School of Education, 1972.

47

Project title: Leisure-Time Physical Activity

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Lars-Magnus Engström, Bengt-Olov Ljung

Number of researchers: 1 Other personnel: 1

Starting date: 1968 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: The aim of this investigation has been to describe the scope of physical activities during leisure-time for students, which forms of physical activity are most common, as well as which motives the students give for these activities. The results have been related to local regions, school experience and other personal variables with the aim of describing the youth who engage in leisure-time physical activities.

Scope: The investigation includes 1,053 girls and 1,090 boys, aged 14 to 15 years, from the counties of Malmöhus, Örebro, Stockholm and Västerbotten.

Methods: Data collection was achieved by use of a questionnaire.

Main findings: Physical activity took up a very large part of the youths' leisure-time. This was especially true of the boys, who reported that they devoted an average of 5 hours per week to such activities, while girls reported an average of 3,5 hours per week. However, the variation between individuals within each sex group was large. Those youths who devoted large amounts of time to physical activity during leisure-time showed significant differences when compared with those who devoted less time to these activities. They had, on the average, a more normal weight for their height, a more positive attitude towards school gymnastics, higher marks in gymnastics, higher marks in theoretical subjects, more frequently chose difficult alternative courses in English and mathematics, and were members of sports clubs more frequently.

The 10 most popular activities among the girls were: swimming, cycling, hiking, badminton, ice-skating, skiing (cross-country and slalom), table-tennis, cycling, sport-fishing, badminton, skiing (as above) and bandy (on ice). It was also determined that social background influenced, to some degree, the choices of activities. The most common motives reported among both boys and girls were "good condition" and "better health".

Bibliographic references:

Engström, Lars-Magnus Idrott på fritid. En enkätstudie bland elever i årskurs 8. (Leisure time physical activity. An inquiry among pupils in grade 8 of the comprehensive school). Stockholm School of Education, 1972, 134 p. (In Swedish).

48

Project title:	Teaching Methods - Religious Knowledge (Project UMRe)
Carried out at:	The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34
Project leader:	Ingemar Fägerlind
Number of researchers:	3 Other personnel: 2
Starting date:	1967 Date of completion: 1972
Source of finance:	The National Board of Education
Background and aims:	Earlier investigations among students in the comprehensive school's middle and upper levels have shown that interest for the subject of religious knowledge is low. It is also evident from these investigations that interest for teaching the subject of religion is low among the teachers at the middle level of the comprehensive school. These investigations also indicate large doubts among teachers as to how objective religious teaching should be carried out. The purpose of the project is to investigate how the aim of the school to provide objective religious instruction can be attained in accordance with suitable educational methods and to work out and evaluate methods for this instruction.
Scope:	-
Methods:	An extensive condition analysis have been carried out within the project consisting of a survey of the last few years' research on religious instruction, the educational situation for the student with regard to this subject, instructional materials and methods, analyses of need and interest for both students and teachers, as well as questions concerning the readiness of students for instruction in religious questions. Aims have been analyzed and an analysis of the present instructional materials carried out. Using the obtained results, a study plan for instruction at the middle level of the comprehensive school has been formulated. To test and solidify those principles and standpoints which emerged from the project, a preliminary curriculum was constructed and tested. Problems concerning evaluation of methods and instructional materials have been studied in this manner.
Main findings:	See reports.

Bibliographic references:

All reports are in Swedish but summaries in English are available.

Marklund, Bengt Intresse för kristendomsämnet på grundskolans låg- och mellanstadier. (Interest for religious education in grades 1-6 in the comprehensive school). Stockholm School of Education, 1968, 87 p.

Nilsson, Ingemar Objektivitet och kristendomsundervisning. (Objectivity and religious education). Stockholm School of Education, 1968, 68 p.

Fägerlind, Ingemar & Johansson, P.O. Undervisningsformer och arbetssätt i kristendomskunskap och orienteringsämnen. (Ways of teaching in religious education and orientational subjects). Stockholm School of Education, 1969, 80 p + app.

Hartman, Sven Elever och religionsundervisning. (The pupils and religious education). Stockholm School of Education, 1970, 50 p.

Fägerlind, Ingemar & Nilsson, Ingemar Bibeltexters läsbarhet. (Readability of different translations of New Testament texts). Stockholm School of Education, 1970, 6 p.

Fägerlind, Ingemar, & Pettersson, Sten, & Westling, Gordon Mognad och undervisning i religionskunskap. (Readiness and the teaching of religious education). Stockholm School of Education, 1970.

Bergling, Kurt Begreppsbildning. (Concept formation). Stockholm School of Education, 1971, 47 p + app.

Hartman, Sven Eleverna och skolans religionsundervisning. (The pupils and religious education. A review of interests). Stockholm School of Education, 1971, 187 p + app.

Lennström, Jan Innehållsanalys av arbetshäften på mellanstadiet för ämnet kristendomskunskap. (Content analysis of study books in religious education). Stockholm School of Education, 1972.

Martinsson, Sven Religionsundervisning och mognad. (Religious education and readiness. A study of the ability of abstract thinking and understanding of parables and religious symbols). Stockholm School of Education, 1968, 74 p.

Naeslund, Lars Utvärderingsproblem och utvärderingsförsök i samband med arbetsområden i religionskunskap. (Formative and summative evaluation of materials in religious education). Stockholm School of Education, 1971, 42 p + app.

Pettersson, Sten Mognad och abstrakt stoff. (Readiness and abstract learning). Stockholm School of Education, 1970, 94 p + app.

Strander, Kerstin Studier av mellanstadieelevers svårigheter och önskemål i samband med undervisning i religionskunskap på grundskolans mellanstadium. (Difficulties for teachers in religious education). Stockholm School of Education, 1972.

Fägerlind, Ingemar & Sjöberg, Gun Barnatro och ungdomstvivel. (Childrens' beliefs and teenagers' doubts). Stockholm, Utbildningsförlaget, 1971, 159 p.

49

Project title:	"The Malmö Study", Follow-up 1938-1972
Carried out at:	The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34
Project leader:	Ingemar Fägerlind, Ingemar Emanuelsson
Number of researchers:	2 Other personnel: 1
Starting date:	1970 Date of completion: 1974
Source of finance:	The Social Science Research Council
Background and aims:	The project is based on the data collected on various occasions, beginning in 1938, about the persons attending the third grade of Malmö schools in 1938. During 1971-72 a collection will be made of register data of various kinds together with questionnaire data concerning adult education and occupation. Scale data are also being collected for the children of the original population. A study is being made of the importance of background factors within and between generations.
Scope:	The population comprises c. 1,500 individuals. The number of children is c. 2,500.
Methods:	Collection of data 1971-72 from taxation registers, central criminal records, social registers and school records. Postal questionnaire to the entire population.
Main findings:	-
Bibliographic references:	Husén, Torsten Talent, opportunity and career. Stockholm, Almqvist & Wiksell, 1969.

50

Project title:	Qualitative Evaluation of Teacher Training (Project KUL-K)
Carried out at:	The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34
Project leader:	Stefan Haglund, Agneta Linné, Leni Björklund, Bo Håkanson
Number of researchers:	4 Other personnel: -
Starting date:	1968 Date of completion: 1976
Source of finance:	The National Board of Education

Background and aims:

The project has been prompted by the new teacher training inaugurated in the autumn term 1968. The investigation is aimed at a continuous qualitative evaluation of the class-teacher training systems of the schools of education. The principal aim of the project is to ascertain the extent to which the various teacher training establishments attain the objectives of the curricula and to identify factors in the teacher training system which facilitate or impede the attainment of those objectives. The evaluation mainly comprises aims and process analyses and is designed to provide a description of the social system of the schools of education. The project is also aimed at the development of methods for the study of training systems.

Scope:

The investigation follows trainee teachers admitted to all schools of education during the academic year 1969/70. The trainees and the system under which they are trained will be followed for the entire duration of their training. In addition, all teachers and administrators involved in class-teacher training are included in the investigation. The project also intends to, at a later date, study the success of the teacher-trainees in their profession.

Methods:

1. Analysis of curricula and other official publications in order to study the objectives of class-teacher training.

2. Questionnaire and interview investigations to study aims, resources and processes at individual schools of education. Knowledge tests in certain central subjects designed in connection with the analysis of aims.

3. Further development of methods of aims and process analysis and the construction of theoretical models for the study of training systems.

Main findings:

The project has described those reforms in the area of teacher training which provide the background to its activities. In connection with this, a presentation of the project's aim and form has been made. (Marklund, 1972.)

A general presentation of class-teacher trainees' evaluations of goals and processes in their education (after 3 terms of training) was made as grounds for a discussion on the content and form of class-teacher training programmes. The presentation is descriptive and based on only half of the answers received. (Linné, Björklund, Haglund, Håkanson, 1972)

In addition, the project has outlined a preliminary suggestion of a model which could be used for the evaluation of proficiency and instruction in English for class-teacher trainees. The suggestion is co-ordinated with the new plan for education, and is based on the experience the project has gained while constructing tests in English and the discussion which arose from that. (Håkanson and Gårdmark, 1972)

Bibliographic references:

All reports are in Swedish.

Håkanson, Bo & Gårdmark, Sigvard Utvärdering av språkfärdighet - ett diskussionsunderlag. Synpunkter beträffande utvärdering av färdigheter och undervisning i engelska vid lärarhögskolornas klasslärarlinjer. (Evaluation of language proficiency - a basis for discussion. Some points of view regarding the evaluation and the instruction in English for class teacher trainees at the Schools of Education). Stockholm School of Education, 1972, 63 p.

Linné, Agneta et al Klasslärarkandidaters värdering av sin utbildning - ett diskussionsunderlag. Redovisning av några resultat från en enkät efter tre terminers utbildning. (Class teacher candidates' evaluation of their instruction - a basis for discussion. An account of some results after three terms of instruction). Stockholm School of Education, 1972, 66 p.

Marklund, Sixten Kvalitativ utvärdering av lärarutbildningen. Ett projekt och dess bakgrund. (Qualitative evaluation of teacher training. A project and its background). Stockholm School of Education, 1972, 59 p.

51

Project title: The Emotional and Social Adjustment of Infants to Day-nurserys

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Ingrid Hårsman, Christina Jenssen

Number of researchers:	2	Other personnel:	4
Starting date	1971	Date of completion:	1975

Source of finance: The International Union for Child Welfare

Background and aims:

In Sweden, children over 6 months of age, depending upon the availability of space, can attend a day nursery. Many researchers have called attention to the risk of negative effects on the child's emotional and social development, since the 6 months old infant's developmental stage is characterized by a recently formed emotional bond to one individual - usually one of the parents. It is therefore assumed that children are especially sensitive to separation during the third and fourth quarters of their first year. The aim of the investigation is to study how a 6 months old child reacts emotionally and socially to being placed in a day nursery, as well as to give an idea of how the child's personality factors and factors in child-care environment influence the child's reaction to separation.

The central question taken up in the investigation is: How does a 6 months old child react emotionally and socially in a day nursery as a result of daily, repeated separation from parents, in particular the mother?

Scope: The investigation involves 60 children divided into 2 groups, 30 of whom are placed in day nurseries and 30 who receive home supervision by one parent. The groups are to be followed for a period of 5 months.

Methods: Direct observation, interviews, Griffiths' Baby Scale and attitude questionnaires.

Main findings: -

Bibliographic references: -

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Project title: Classroom Climate

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Sonja Jansson

Number of researchers: 1 Other personnel: 1

Starting date: 1970 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: The origin of the questions examined in this project can be found in the SAG-project (independent work in upper secondary school) 1965-1970. The aims of the project are to

a) Make a theoretical-methodological survey and analysis of the problem area, among other things the concept of "climate", its definitions and theoretical roots;

b) to try to measure classroom "climate", including construction of a suitable instrument;

c) to study the relationship between classroom climate and some learning variables concerning achievement and attitudes.

The problem area is approached in two steps. The first by making an inventory of the concept of climate and theories in the area. The second step is to try to define and measure climate.

Scope: This investigation began as a special substudy within the SAG-project. The sample was comprised of 38 classes in the second year of the secondary school. The classes used new material, "History on Your own".

Methods: Questionnaires (teachers, students)

Interviews (students)

Main findings: -

Bibliographic references: Jansson, Sonja Inlärningsklimatet. Ett mätningsförsök i gymnasiets årskurs 2. (An attempt to measure the learning climate in grade 2 of the secondary school). Stockholm School of Education, 1971, 16 p + app (In Swedish)

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Project title: CCTV in Teacher Training

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader:	Jon Naeslund
Number of researchers:	2
Other personnel:	0.5
Starting date:	1968
Date of completion:	1975
Source of finance:	The National Board of Education

Background and aims:

1. Inventory of CCTV requirements in teacher training.

2. Study of attitudes to the use of CCTV for:
a) concretization of teaching and consequent integration of theory and practice
b) replacement or preparation of direct visits to classes
c) supplementation of methodology teaching by micro-teaching

3. Using CCTV to study the reliability of subjective assessments:
a) in connection with admissions interviews
b) in connection with awards for teaching proficiency.

Scope:

1. All lecturers in methods and pedagogics in Sweden

2. Ca. 2,000 teacher trainees

3. 2 x 12 trainees assessed by a total of some fifty judges.

Methods:

1. Teachers have noted their priorities with fixed frequencies in programmes drawn up by experts for the various subjects and school levels.

2. A study is being made of the subjects' attitudes to the various uses of CCTV in teacher training. A comparison is also being made in certain cases of teaching (observation, visits to classes, etc.) with and without CCTV.

3. The main objects of study are the inter- and intra-reliability of assessments. The validity aspects are also dealt with in certain sectors.

Main findings:

1. The student teachers find pedagogics and methods more meaningful and better integrated with practice when illustrated by means of CCTV.

2. CCTV-observations are considered better than or as good as direct classroom observations by more than 50 % of the student teachers.

3. Micro-teaching makes the student teachers more confident before their first training in classrooms. A questionnaire, constructed by the project, has proved to be very reliable.

4. Subjective judgements in teacher training - at entrance interviews and judgements of teacher performance - are not very reliable.

Bibliographic references:

All reports are in English.

Naeslund, Jon Attitudes of students towards closed-circuit television in teacher training. Stockholm School of Education, 1969, 18 p + app.

Ljung, Bengt-Olov & Naeslund, Jon Interview method in the selection of applicants for teacher training. A study of the reliability of judgements of video taped interviews. Stockholm School of Education, 1970, 40 p.

Ljung, Bengt-Olov & Naeslund, Jon Judging student teachers. Agreement in judgements of student teaching and the validity of video taped applicant interviews. Stockholm School of Education, 1970, 25 p + app.

Gustavsson, Kurt & Naeslund, Jon Closed-circuit television (CCTV) at the Stockholm School of Education. Stockholm School of Education, 1969, 19 p + app.

54

Project title: Infant Supervision/Child Care

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Anita Söderlund

Number of researchers: 1 Other personnel: 2

Starting date: 1971 Date of completion: 1973

Source of finance: Allmänna Barnhuset, Stockholm

Background and aims:

The current trend is towards an increase in the number of women entering the labor market, creating an increase in the need for infant and child supervision. This trend has also brought forth a debate as to how supervision and care for children under the age of 3 should be arranged. Most of the foreign investigations concerning infants utilize results obtained in orphanages. In the current debate these results have often been incorrectly introduced as a background for discussion. The results of those foreign investigations dealing with infants in family day care are generally not relevant to Swedish circumstances.

The aim of this investigation is to describe three supervision forms in terms of physical and psychological environment and to investigate for any developmental psychological differences between children arising as a result of these forms. The investigated supervision forms are day nursey, family day care and the home where supervision is carried out by one of the parents.

Scope: The investigation comprises 50 children from each of three supervision forms, i.e. 150 in total. Family day care and day nursery personnel and parents are included in the investigation for background information. The investigation is being carried out only within the Stockholm area.

Methods: Assessment of the children's development is achieved by using the Griffiths' Baby Scale.

In addition, interviews, questionnaires and direct observations are used.

Main findings: -

Bibliographic references: -

55

Project title: Working Methods in Preschool and Primary School

Carried out at: The Department of Educational and Psychological Research, Stockholm School of Education, Fack, S-100 26 Stockholm 34

Project leader: Inger William-Olsson

Number of researchers: 2 Other personnel: 2

Starting date 1970 Date of completion: 1973

Source of finance: The National Board of Education

Background and aims: Working methods as they are expressed in planning and use of localities and material, the composition of the group and the teacher's role in preschool and primary school is described and evaluated. The project consists of three studies:

1. Group play in preschool. The influence of group play on the socialization process is studied.

2. Emotionally disturbed children in preschool. The working

methods are described and the cognitive development of children is studied.

3. Comparison of working methods in preschool and first grade. Frame work, content and methodology in the two school forms is described.

Scope: Study 1 consists of an analysis of the literature on the subject.

Study 2 covers 75 5-7 year-olds in 17 preschools.

Study 3 covers 20 groups in primary and 20 groups in preschool.

Methods: Studies of literature, observations and interviews are used to describe working methods, tests and observations of cognitive processes and products are used.

Main findings: The results will be presented in six reports which will be completed during 1972-73.

Bibliographic references:

William-Olsson, Inger Kognitiva processer och produkter hos förskolebarn. Redogörelse för några mätmetoder. (The cognitive processes and products among pre-school children) Stockholm School of Education, 1972, 9 p + app.

56

Project title: Effects of Group Impacts, in the First Hand Psychotherapy

Carried out at: The Institute of Education, University of Stockholm

Project leader: Bo Sigrell

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1973

Source of finance: The Social Science Research Council

Background and aims: The program consists of a head project with the purpose to study the effects of group psychoterapy and a number of side projects with the purpose to study effects of other types of group activities, discussion groups with teachers and sensitivity training groups.

Scope:

1. 4 psychotherapy groups over a period of 2 years.
2. A number of discussion groups for teachers over 1 year.
3. Sensitivity training groups - 3 groups during 1 week courses.

Methods:

1. Interviews before and after psychotherapy
   Q-sort (self, ideal self).
   Defence-mechanism Test
2. Surveys and interviews after the discussion groups.
3. Interviews before and after training weeks.

Bibliographic references:

All reports are in Swedish.

Sigrell, Bo Effekterna av gruppåverkan och i första hand psykoterapi. (The effects of group impacts, in the first hand psychotherapy). University of Stockholm, 1970.

Albert, F. Stamning - en jämförande litteraturstudie. (Stuttering - comparative literature survey). University of Stockholm, 1970.

Hessle, S. En perceptgenetisk studie av patienter före och efter psykoterapi. Del I. Egoutveckling - försvarsmekanismer - perception. (A perceptgenetic study of patients before and after psychotherapy. Part I. Development of ego - defense mechanisms - perception). University of Stockholm, 1972.

57

Project title: The Students' Work Load

Carried out at: The Pedagogical Centre in Stockholm, Fack, S-104 35 Stockholm 23

Number of researchers: 2 Other personnel: -

Starting date: 1969-70 Date of completion: 1972-73 (Part 1)

Source of finance: The Stockholm County Council

Background and aims:

The students in the Swedish secondary school are generally said to have a great work load. This part of the project aims at making a broad survey of the total work situation - not only the amount of homework - of the students in the secondary schools in Stockholm. The main study was preceded by interviews with a sample of students in order to get preliminary information on how to arrange the investigation in such a way as to make the students willing to co-operate and to put their names on the questionnaires.

Scope: Pre-study: An unsystematic sample of 300 students from several secondary schools in the Stockholm area. Main study: All students in grade 2 of the 3- and 4-year lines of the secondary schools in Stockholm; 24 schools, 128 classes, 3,144 pupils.

Methods: Pre-study autumn 1971. Interviews and questionnaires about the relevance and importance of the issues concerned, and about the possibility of persuading the students to write their names.

Main study spring 1972. Data were collected in the classes by means of a non-anonymus questionnaire. For absent students a new occasion was arranged some weeks later. Questionnaires were sent by mail to those still absent. Variables: school equipment, home work and study habits, types of school work, work times, absence, school democracy and attitudes to the school.

Main findings: Pre-study: It seemed possible to carry out the inquiry non-anonymously if the request of names was properly motivated and the students were informed on the aim of the investigation and on how to arrange the protection of their names. The students attached importance to issues such as teachers, school buildings, syllabuses. Out-of-class activities and relationships to teachers, parents and to other students seemed to be of minor importance. These questions were thought to be answered by most students. Questions on social background were judged as highly irrelevant to the subject matter and evoked very strong resistance among the students. According to the students, it would be wise to discard such questions, otherwise the whole investigation might well be risked.

Main study: The mean absence at the first occasion was 13 %. After the second collection 96 % of the student population was covered, and with the mail answers the non-responses were less than 1 %. Less than 3 % of the students refused to give their names. The processing of data has just started.

Bibliographic references: -

58

Project title: New School Adjustment Model for Beginners (Project NYMF)

Carried out at: The Pedagogical Centre in Stockholm, Fack, S-104 35 Stockholm 23

Project leader: Lars-Magnus Björkquist, Elisabeth Gahnström, Maud Skerving

Number of researchers: 3 Other personnel: 2

Starting date: 1969 Date of completion: 1973

Source of finance: Stockholm Local Education Authority

Background and aims:

The aim of the experiment is to compare the results of two treatment models for emotionally, intellectually and socially deviant school starters:

1. Placing these children in a class for immature children
2. Co-ordinated remedial instruction in the ordinary class.

The investigating team is also studying the development of non-deviant children in the experimental classes as well as in classes from which deviant children have been removed to a school maturity class.

The experiment began in the autumn term of 1969. As the curriculum of 1969 (Lgr 69) has come into force the experiment has become an examination of co-ordinated remedial instruction, proposed in Lgr 69.

Scope: The project comprised appr. 1,000 pupils divided in different types of experiment and control groups.

Methods: Investigation of school readiness, tasks of school adjustment, Egidius' group test, reading test, mathematical test, interwiews, observation schedules and questionnaires.

Main findings: Results have now been gathered and analysed for a final report from grade 1. Principally they touch upon:

1. The teachers' experiences of the experiment work
2. The pupils' experiences of their schooling
3. The levels of ability and knowledge of the pupils at the beginning and at the end of grade 1.
4. The teachers judgement of the behavior of deviant children in experimental classes as well as in classes for immature children.

Bibliographic references: -

59

Project title: Reading Practice in the Middle Level. Teacher's Guide No. 1 (Project LÄMMEL)

Carried out at: The Pedagogical Centre in Stockholm, Pack, S-104 35 Stockholm 23

Project leader: Carl Hugo Björnsson

Number of researchers: 1.5 Other personnel: 1

Starting date: 1968 Date of completion: 1973

Source of finance: The Stockholm County Council and The National Board of Education

Background and aims: Request for a material-method system that would - more than the usual reading books - further a systematical and individualized reading training in the middle level have long since been presented. The project aims at such a material. There is great weight put upon the training of reading comprehension and upon critical and creative reading, but not on speed training. All material consists of texts with three levels of difficulty. The goal is that all pupils should get reading material suitable for their ages and interests. This arrangement allows a common after treatment in a whole class, e.g. in the form of drama, discussion or a writing exercise. The meaning is that the pupils should be working on the text and not only sum up the contents of what they know and remember.

Scope: So far the reading programme for grade 4 has been completed. It consists of 34 pamphlets in three versions and it has been tested in 50 classes during 1971/72. The programme for grades 5 and 6 is in progress.

Methods: At the introductory stage, there was an analysis of the purpose of the project and of the research work. There was also a questionnaire for teachers in order to map out habits and needs. Tests were made to make it possible to decide the different levels.

Authors of children's books write the original texts, which are afterwards examined by the project's expert team. The research centre has produced the training and guidance material. The expert team including 12 persons (school inspectors, school librarians, consultants and teachers) participate continually in the work.

The evaluation has three phases:

1) After every reading lesson the teachers give their own and the pupils' experiences and their attitudes on a form.

2) Tests are being given at the beginning of the autumn term and at the end of the spring term.

3) At the end of the school year there is a questionnaire on the material as a whole, linguistically, pedagogically and with regard to the organization and the content.

Main findings:

At present, there have been results only from the questionnaires mentioned above. The following preliminary conclusions can be made:

1) The arrangement with the pupils themselves choosing the proper level of difficulty functions well.

2) The pupils have chosen the difficult versions to a larger extent and the easy one to a smaller extent than was expected.

3) On the whole the pupils have enjoyed the reading material. In a scale of three grades in the dimensions fun(3) - boring(1) the average for the texts is 2.5.

4) The pamphlets emphasizing the technique of reading have, quite naturally, a somewhat lower average number (.3).

5) The level of difficulty of the three versions has been experienced the same. This was of course one of the main purposes of the material.

6) The criticism of the teachers is mostly positive. Their negative criticism will be of great value for the future revising of the material.

Bibliographic references:

Björnsson, Carl Hugo & Davidson, Herbert, & Nilsson, Ingvar Lästräning på mellanstadiet. (Reading practice in the middle level). The Pedagogical Centre in Stockholm, 1971, 48 p. (In Swedish)

60

Project title: Dropouts in the Comprehensive School

Carried out at: The Pedagogical Centre in Stockholm, Fack, S-104 35 Stockholm 23

Project leader: Ingemar Emanuelsson

Number of researchers: 3 Other personnel: 1

Starting date: 1969 Date of completion: 1973

Source of finance: The Stockholm Local Education Authority

Background and aims:

The extension of the period of compulsory attendance creates considerable problems for many pupils. School-fatigued pupils ask to be allowed a break in their studies before they have completed their compulsory schooling. The Education Act and other regulations recommend a restrictive policy in the granting of such requests. The officers who have to consider individual cases often confess to being at a loss what to decide. The material available in the form of applications received by the Stockholm Education Authority should cast valuable light on the problems mentioned in connection with the suspension of studies.

Scope:

The material comprises the 454 pupils in Stockholm who interrupted their comprehensive school attendance during the period 1964-07-01 - 1968-12-31, together with ca. 1,400 pupils in grades 7-9 of the comprehensive schools in Stockholm. Some 450 upper level teachers in Stockholm are also involved.

Methods:

Review of registers, journals, personal contacts, etc. Questionnaires to head teachers and other staff categories involved. During the follow-up stage, data will be collected from registers and by means of questionnaires etc.

Attitude, intelligence and interest measurements of pupils.

Questionnaire to upper level teachers concerning attitude to school fatigue and suspension of studies. Policy models will be constructed and tested on the basis of the follow-up and survey.

Main findings:

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Bibliographic references::

All reports are in Swedish.

Emanuelsson, Ingemar Studieavbrott i grundskolan. Litteraturgenomgång, projektplanering och förstudier. (Dropouts in the comprehensive school. Literature survey, planning of the project and some preliminary investigations). The Pedagogical Centre in Stockholm, 1970, 52 p + app.

Emanuelsson, Ingemar Studieträning på högstadiet. Litteraturgenomgång, projektplanering och förstudier. (The training of study habits in grades 7-9 in the comprehensive school. Literature survey, planning of the project and some preliminary investigations). The Pedagogical Centre in Stockholm, 1971, 21 p + app.

Emanuelsson, Ingemar et al Studieavbrott i grundskolan. 2. Högstadielärares inställning till skolleda och studieavbrott. (Dropouts in the comprehensive school. 2. Upper level teachers' attitudes towards school fatigue and dropout). The Pedagogical Centre in Stockholm, 1971, 51 p.

Jiveskog, L-O. Studieavbrytares skolbakgrund. (School background among dropouts). Stockholm School of Education, 1972.

61

Project title: Immigrant Students at the Senior Level of the Comprehensive School

Carried out at: The Pedagogical Centre in Stockholm, Fack, S-104 35 Stockholm 23

Project leader: Hilda Kernell

Number of researchers: 1 Other personnel: 1

Starting date: 1970 Date of completion: 1972

Source of finance: The Stockholm Local Education Authority

Background and aims: The aim of the investigation is to make a follow-up study of the social integration of immigrant students (aged 14-16 years) among their Swedish classmates.

The project also aims to compare immigrant and Swedish students regarding the frequency of absence from school, school marks, intelligence and general interests.

Scope: The sample consists of about 1,400 students from six comprehensive schools in Stockholm.

Methods: Sociometry, questionnaires, WIT (intelligence test), data from the school register.

Main findings: -

Bibliographic references: Kernell, Hilda Invandrarelever på högstadiet. 1. Social integrering bland klasskamrater och attityder till skola och hemmiljö. (Immigrant pupils in grades 7-9 of the comprehensive school. 1. Social integration among classmates and attitudes towards the school and home environment). The Pedagogical Centre in Stockholm, 1972, 55 p. (In Swedish)

62

Project title: Development and Change in Variables in Educational Settings

Carried out at: The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm

Project leader: Lars R. Bergman

64

Project title:	Adjustment - a Longitudinal Study. (The Örebro Project)
Carried out at:	The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm
Project leader:	Anders Dunér, David Magnusson
Number of researchers:	12 Other personnel: 7
Starting date:	1964 Date of completion: 1976
Source of finance:	The National Board of Education

Background and aims:

The aims of the project are, in short:

a) to study the importance for later adjustment of different kinds of behavior in the early years at school (analyses of relations between adjustment at school, on the one hand, and social adjustment and achievement in further education and occupational work, etc. on the other);

b) to study factors of importance for adjustment to the school situation; and

c) to study the importance of adjustment for the possibilities of the individual to perform according to his capacity. The investigations are intended to search for ways to give earlier and more precise prediction of adjustment at school and social adjustment, so that effective measures to prevent maladjustment may be taken early in school and by other institutions.

Scope:

Investigation groups are all pupils in grades 3, 6 and 8 at the schools of Örebro in 1965. The main group (born in 1955) was followed from grade 3 in 1965, until it left the comprehensive school in 1971.

Methods:

Problems are treated within the framework of psychological and methodological models, which are relevant for the study of open systems, e.g. change models, models for classification to homogeneous classes, relative achievement, causal relations, and decision making. Examples of problems are given in descriptions of subprojects. The project has a data bank of information from total group investigations on repeated occasions, which comprises the following groups of variables: social background, satisfaction (inner adjustment), peer relations, attitudes and values, norms, intelligence, creativity achievement, motives and aspirations in career choice aspects, and parent attitudes etc. Instruments in the total group investigations have been different types of questionnaires, tests and other group administered instruments and ratings. One sample is drawn for studies of certain physiological variables, another for intensive studies

whose parents are highly educated on the average change positively, and this tendency is strongest in Verbal Comprehension and for boys.

Bibliographic references:

Bergman, Lars R. Some univariate models in studying change. University of Stockholm, 1971, 34 p. (In English).

63

Project title: Biological Age and Adjustment (A substudy of the Örebro Project)

Carried out at: The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm

Project leader: Brita Blom, David Magnusson

Number of researchers: 1 Other personnel: Personnel shared with the Örebro Project

Starting date: 1970 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: The aim of the study is to analyse the relations between biological age, mental development and adjustment.

Scope: The investigation group includes all girls in grade 8 (1969-70) at the schools of Örebro. This group has been followed from grade 3. Number of subjects: about 400.

Methods: To determine the stage of biological maturation time of menarche has been used (questionnaire in grade 8). Chronological age has also been taken into consideration. Biological maturation has been related to the data bank of the Örebro Project, where data from pupil inquiries, objective tests, parent inquiries, teacher and peer group ratings, self perception and sociometric ratings have been used.

Main findings: -

Bibliographic references: -

64

Project title:	Adjustment - a Longitudinal Study. (The Örebro Project)
Carried out at:	The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm
Project leader:	Anders Dunér, David Magnusson
Number of researchers:	12 Other personnel: 7
Starting date:	1964 Date of completion: 1976
Source of finance:	The National Board of Education
Background and aims:	The aims of the project are, in short: a) to study the importance for later adjustment of different kinds of behavior in the early years at school (analyses of relations between adjustment at school, on the one hand, and social adjustment and achievement in further education and occupational work, etc. on the other); b) to study factors of importance for adjustment to the school situation; and c) to study the importance of adjustment for the possibilities of the individual to perform according to his capacity. The investigations are intended to search for ways to give earlier and more precise prediction of adjustment at school and social adjustment, so that effective measures to prevent maladjustment may be taken early in school and by other institutions.
Scope:	Investigation groups are all pupils in grades 3, 6 and 8 at the schools of Örebro in 1965. The main group (born in 1955) was followed from grade 3 in 1965, until it left the comprehensive school in 1971.
Methods:	Problems are treated within the framework of psychological and methodological models, which are relevant for the study of open systems, e.g. change models, models for classification to homogeneous classes, relative achievement, causal relations, and decision making. Examples of problems are given in descriptions of subprojects. The project has a data bank of information from total group investigations on repeated occasions, which comprises the following groups of variables: social background, satisfaction (inner adjustment), peer relations, attitudes and values, norms, intelligence, creativity achievement, motives and aspirations in career choice aspects, and parent attitudes etc. Instruments in the total group investigations have been different types of questionnaires, tests and other group administered instruments and ratings. One sample is drawn for studies of certain physiological variables, another for intensive studies

of using interviews with parents, pupils, and their teachers, and observations of behavior in school situations.

Main findings:

The output from the project consists of such a multitude of results that it is necessary to refer directly to the substudies for the practical results. The work so far, as well as the results, strongly indicates that the broad interdisciplinary and lingitudinal approach that has been undertaken has proved to be very fruitful. Many problems of current interest have been studied within this project which otherwise would have taken years of special study. Examples are the sub-projects concerning school segregation and dropouts. In theory, the scope of the project is large enough to allow the study of a variety of such problems, but in practice, limited resources enforce a careful selection of problems for study. It has been shown that variables measured with uncomplicated and cheap methods during the first school years can fairly well predict later important types of behavior.

Bibliographic references:

Magnusson, David & Dunér, Anders & Zetterblom, Göran Adjustment - a longitudinal study. Unpublished manuscript, University of Stockholm, 1971. To be published in 1972.

65

Project title: Effects of Social Differentiation. (A substudy of the Örebro Project)

Carried out at: The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm

Project leader: Anders Dunér, David Magnusson

Number of researchers: 3

Other personnel: Personnel shared with the Örebro Project

Starting date: 1969

Date of completion: 1972

Source of finance: The National Board of Education

Background a and aims:

In the Swedish school system the classes are helt together for the nine years in the comprehensive school. In this way the pupils are intended to get a wide social and intellectual experience. Groups are not to be isolated and segregated according to social circumstances. The purpose is, however, counteracted

by the way our larger cities are planned and built, with large, homogeneous areas, which are inhabited by people with the same economic possibilities and preferences. Children from these same areas go to the same schools and thus form homogeneous classes as regards the socio-economic background.

The purpose is to describe the degree of social differentiation in the school classes of Örebro, and possible effects as regards achievement, motivation, school satisfaction, social adjustment, attitudes to education and so on.

Scope:

Investigations are made for

a) all grade 9 pupils in Örebro in 1968, who have belonged to the same classes during their first eight years at school and

b) grade 6 pupils in Örebro in 1968, who have belonged to the same classes at least for three years. In all 2,000 children are being studied.

Methods:

Data from the Örebro Project are used. Pre-studies are made on extreme groups: pupils from high SES in classes where most of the peers have high and low SES respectively as well as pupils from low SES with the majorities of peers from high and low SES.

The main analyses are performed using regression analytical techniques. An index of the social composition of the class is the independent variable. Intelligence and SES are controlled. Dependent variables are achievement, satisfaction, motivation, anxiety, delinquency (for boys), and a number of measures of attitudes to education and vocational choice. The independent variables are measured in grade 3 and 6 respectively, the dependent variables in grade 6 and 9 respectively. The SES index can be viewed as mainly a measure of parents' education.

Main findings:

The results show no or small effects of social differentiation on the dependent variables. A weak tendency is found for the achievement level to be influenced by the class composition. The same is the case for motivation for school work. Satisfaction with school life or delinquency rate in boys are variables which seem not to be influenced.

As to career choices a tendency is found to choose more theoretical subjects for study if the majority of the class is from high SES. This effect is not followed by differences in the real choices of continued education after the comprehensive school.

Bibliographic references:

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66

Project title:	Normformation (A substudy of the Örebro Project)
Carried out at:	The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm
Project leader:	Anders Dunér, David Magnusson
Number of researchers:	3
Other personnel:	Personnel shared with the Örebro Project
Starting date:	1969
Date of completion:	1973
Source of finance:	The National Board of Education, The Social Science Research Council

Background and aims:

Norms can be viewed from an evaluative standpoint, but they can also be viewed as action tendencies in which case they should be closely related to the actual behavior. In an earlier investigation norms were studied for all 8 grades, and the purpose of the present investigation is to study the relationship of norm systems to other aspects of adjustment, e.g., earlier adjustment to school in grades 3 and 6. Furthermore, mechanisms behind experiences of discrepancies between personal and parental norms (the generation gap) are to be investigated.

Scope:

An age group of Örebro children (about 1,000) followed from grade 3, who in grade 8, among other things, participated in a study concerning norms, and for girls also in studies concerning symptoms and social relations.

Methods:

Norms are studied with a test using situations as stimuli. In ten situations of relevance to teen-agers, the subjects have expressed their evaluations and action tendencies, as well as those they believe hold for their parents and peers. Using Latent Profile Analysis, the subjects have been divided into five groups having different norm profiles. This was made for each sex separately. These groups are studied from different aspects such as earlier behavior in grades 3 and 6, symptoms in grade 8 (only for girls), and rate of delinquency in grade 9 (only for boys), etc. An extreme group with large differences between the subjects own and the parents norms are separately investigated for the purpose of finding suggestive patterns in background data.

Main findings:

Teen-age norms are stricter than teen-age action tendencies, as measured by the used test. The overall impression is a compromise pattern with the average teen-ager trying to simultaneously take into consideration the often conflicting norm patterns of the parents and peers. Most subjects viewed the parents as norm

keepers, but the peers as lenient towards the violation of norms. Conflicts with parents about norms are not felt to be important by most subjects. There appears to be no valid reason for assuming the existence of just one teen-age culture. The attitudes towards parents and peers, as well as the complete norm patterns, differed appreciably between different groups of teen-agers. Five such groups resulting from LPA showed clear differences with regard to adjustment problems in grades 3 and 6. Teen-agers with weak norms had earlier had adjustment problems, been more peer-oriented, and had less satisfactory relations to their parents. These difficulties have increased from grade 3 to grade 6. For girls, the five LPA-groups were compared with regard to frequency of symptoms in grade 8. Finally, a special investigation was performed on a group of teen-agers having norms being very discrepant from the parents' norms.

Bibliographic references:

All reports are in Swedish.

Henricson, Marta Tonåringars normer och normkonflikter. (Teen-agers' norms and norm conflicts). University of Stockholm, 1971.

Andersson, A-M. & Aronsson, B. 111 Örebroungdomar. En extremgruppsundersökning av normavvikare. (111 teen-agers in Örebro. An extreme-group study of norm deviates). University of Stockholm, 1971, 68 p.

Sandstedt, A.C. Trots och anpassning hos tonårsflickor. (Opposition and adjustment in teen-aged girls) University of Stockholm, 1971, 35 p + app.

Domfors, Lars-Åke Normstränghet och anpassning. En uppföljningsundersökning. University of Stockholm, 1972, 43 p + app.

67

Project title: Criminality - Conformity. A Study of Development Towards Law-Abidingness or Towards a Criminal Outsidergroup (A substudy of the Örebro Project)

Carried out at: The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm

Project leader: Anders Dunér, David Magnusson

Number of researchers: 3 Other personnel: -

Starting date: 1965 Date of completion: 1975

Source of finance: The National Board of Education

Background and aims: The study intends to describe criminal behavior of schoolboys and the development they pass through towards law-abidingness or towards a criminal outsider group.

Scope: About 550 schoolboys in Örebro. Measurements of them are available from grade 3 in 1965, to grade 9 in 1971. Information about criminal behavior is registered for about 580 boys in grade 9 in 1971.

Methods: This study has been preceded by a pilot study of the population of the Örebro Project - grade 6 in 1965 and grade 9 in 1968. The experiences from this study form the background of the current questionnaire. These questions given are about a number of usually occurring types of crimes, knowledge and attitudes to actual laws and decrees. The collected information has then been integrated with information collected earlier. Data for these pupils about adjustment, behavior and performance are now available from grade 3 in 1965, grade 6 in 1968, and grade 8 in 1970 and grade 9 in 1971. The purpose is to study to what degree information from earlier grades can predict criminality and/or conformity in grade 9.

Main findings: A descriptive reporting of the appearance of criminality, rate of detection, police report, knowledge and attitudes to laws and decrees is available in preliminary versions. Preliminary studies have just started concerning the more longitudinal aspects.

Bibliographic references: All reports are in Swedish.

Haglund, Bo Prövning av en modell för utveckling av icke konformt beteende. (Testing a model for the development of nonconformal behavior). University of Stockholm, 1971.

Magnusson, David et al Kriminellt beteende: Modeller och undersökningsplanering. (Criminal behavior: Models and planning of the investigation). University of Stockholm, 1968, 39 p.

Olofsson, Birgitta Brottslighet bland skolbarn i Örebro. (Criminality among school children in Örebro). University of Stockholm, 1967.

Olofsson, Birgitta Självdeklarerad brottslighet bland pojkar i grundskolans åk 9. (Self-declared criminality among boys in grade 9 of the comprehensive school). University of Stockholm, 1969, 121 p.

Olofsson, Birgitta Brottslighet - konformitet. En utvecklingsstudie på grundval av självdeklarerad brottslighet av pojkar i grundskolan. (Criminality - conformity. A developmental

study based upon self-declared criminality among boys in the comprehensive school). University of Stockholm, 1971, 229 p.

Olofsson, Birgitta Vad var det vi sa! Om kriminellt och konformt beteende bland skolpojkar. (On criminal and conformal behavior among school boys) Stockholm, Allmänna Förlaget, 1971, 334 p.

68

Project title:	The Career Choice Process (A substudy of the Örebro Project)		
Carried out at:	The Institute of Psychology, University of Stockholm, Box 6706, S-113 85 Stockholm		
Project leader:	Anders Dunér, Lennart Elg, Fredrik Hjortzberg-Nordlund		
Number of researchers:	3	Other personnel:	Personnel shared with the Örebro Project
Starting date:	1968	Date of completion:	1976
Source of finance:	The National Board of Education		

Background and aims:

During his school years, the growing youth must make several choices of great importance for his future work involvement. The aim is to study mechanisms that guide these choices. Several groups are studied using a longitudinal procedure. Creativity is given special attention for those groups that continue their theoretical education after the comprehensive school.

Scope:

a) One cohort of about 1,000 pupils has been followed from grade 6 to grade 9 in the comprehensive school and to grade 3 in the secondary school.

b) One cohort of about 1,000 pupils has been followed from grade 3 to grade 9 in the comprehensive school (this is the main group of the project).

Methods:

Different aspects of the choice situation are studied within a frame of reference founded on existing theories in this field.

Important concepts are reference groups, needs and values, attitudes, intelligence, and self-evaluation. Basic data from the Örebro Project are used, and special vocational question-

naires have been issued to pupils and teachers. Attitudes to different types of education and work have been assessed with an instrument of semantic differential type. These instruments have been used on the main group in grades 6, 8 and 9. In the secondary school special intelligence and creativity measures have also been collected.

Main findings:

Career choice is viewed as a part of an adjustment process. A frame of reference is presented where important aspects are activity and freedom of choice, development, choice of role, cost and reward, etc. A two-step model for the separate choice is presented. The first step is a selection of choice alternatives. The second is the cognitive process of matching one's own capacity and needs to demands and rewards of the alternatives. Each choice is part of the process. Empirical studies have described the views of pupils and parents on educational choice. Special interest is given to aspiration. Attitudes to problems concerning vocational choice have been related to social background, intelligence, aspiration, and creativity. The pupils' perception of the world of work has been described. The role of self-evaluation in vocational choice and the role of school satisfaction in choice of career line have been studied. The importance of social segregation in the class for attitudes to choice problems has also been analysed.

Bibliographic references:

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69

Project title: Studies of Creativity (A substudy of the Örebro Project)

Carried out at: The Institute of Education, University of Stockholm, Box 6706, S-113 85 Stockholm

Project leader: Lennart Elg, Anders Dunér, David Magnusson

Number of researchers: 4 Other personnel: -

Starting date: 1968 Date of completion: 1976

Source of finance: The National Board of Education and The Office of the Chancellor of the Swedish Universities

Background and aims:

This study investigates the importance of creative ability for educational choice, and educational adjustment and performance.

The role of creative ability at the post-secondary level is studied by Elg (1972). Dunér (1972) has studied the effect of creativity on career choice at the primary school level

Scope: Investigations are carried out on two age groups consisting of 400 and 1,000 students, respectively.

Methods: Two age groups, born in 1952 and 1955, are followed in a longitudinal study. Investigations carried out on the older group serve as pilot studies for investigations of the younger group. The groups studied constitute the total population of students at those age levels in the city of Örebro.

Data are collected by group administered methods such as questionnaires, etc. Creative ability is measured with tests of divergent production.

Main findings: Results have so far been obtained mainly at the primary school level. More creative students seem to be better adjusted at school, which has earlier been questioned. Effects on educational choices and attitudes are found to be small or negligible.

Bibliographic references:

Dunér, Anders Vad skall det bliva? Undersökningar om studie- och yrkesvalsprocessen. (Investigations concerning educational and vocational choice). Stockholm, Allmänna Förlaget, 341 p. (With an English summary).

Elg, Lennart Kreativitet och högre studier I: Insamling av basdata 1971. (Creativity and higher education I: Collection of basic data). University of Stockholm, 1972, 46 p + app.

Magnusson, David, Dunér, Anders & Zetterblom, Göran Adjustement - a longitudinal study. Unpublished manuscript, University of Stockholm, 1971. To be published in 1972.

70

Project title: Measurement of Readability in Written Text

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Jarl Backman

Number of researchers: 1 Other personnel: 1

Starting date: 1971 Date of completion: 1974

Source of finance:

The National Board of Education

Background and aims:

The main purpose of the project is, besides testing various easily countable attributes of a text, to manipulate certain psycholinguistic variables experimentally so that their effect on the reader's performance can be measured. The orientation is theoretical as well as practical and the methodology deviates from the well-worn path of analyzing texts in order to devise better readability formulas.

Scope:

Experimental studies concerning

a) the predictability of a Swedish conventional readability formula and

b) effects on readability of active and passive transformations of sentences.

Methods:

The introductory phase of the project consisted of a literature survey (to be published) on scientific articles and books published during the period 1962-1972. A later phase concerned various experimental studies with manipulation of linguistic variables.

The ANOVA-technique is the main statistical method.

Main findings:

The experimental studies hitherto showed that variation of sentence length had no effect on neither comprehension nor perceived difficulty. There were no differences between immediate and delayed comprehension scored. Transformations to active sentences, however, gave somewhat better results than the corresponding passive transformations.

Bibliographic references:

Backman, Jarl Prediktion av läsförståelse och upplevd svårighetsgrad hos text vid variation av meningslängd. (Prediction of reading comprehension and the experience of the degree of difficulty in texts when varying sentence length). University of Umeå and Umeå School of Education, 1972, 14 p. (In Swedish).

Auden, Barbro & Jonsson, Gunilla Psykolingvistiska aspekter på läsbarhet - ett urval aktuella teoretiska och empiriska bidrag. (Psycholinguistic aspects on readability - a selection of current theoretical and empirical contributions). University of Umeå and Umeå School of Education, 1972, 47 p. (In Swedish).

71

Project title:	Cooperation in the Classroom. Training for Groupwork
Carried out at:	The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå
Project leader:	Thor Egerblad
Number of researchers:	1 Other personnel: -
Starting date:	1970 Date of completion: 1974
Source of finance:	The National Board of Education
Background and aims:	Current curriculum intentions concerning cooperation and group work. The aims are: 1. to define the concept of group work 2. to study "which effects on the behavior and achievement of the pupils has a systematic group work training?"
Scope:	Three pilot-studies were conducted during 1970/71. The main trial was conducted with eight experimental classes and eight control classes during eight weeks.
Methods:	1. Systematic observations with a time-sampling method. 2. Two parallel achievement tests. 3. Two different knowledge tests concerning examination behavior. 4. Pupil and teacher questionnaires. Chi-square, t-test, two-way analysis of variance, analysis of co-variance and Friedman's rank method.
Main findings:	Compared with normal groups, expected significant differences were obtained concerning work distribution, communication and reporting behavior. No significant differences concerning other observed categories. Most group work achievements were improved. No crucial differences concerning examinations behavior. Pupils and teachers showed positive attitudes towards the group work instructions.
Bibliographic references:	-

72

Project title:	Education and Student Analyses
Carried out at:	The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå
Project leader:	Inga Elgqvist-Saltzman, Sten Henrysson
Number of researchers:	1 Other personnel: 0.5
Starting date:	1968 Date of completion: 1973
Source of finance:	The Office of the Chancellor of the Swedish Universities

Background and aims:

A longitudinal study of around 1,000 students enrolled in the liberal arts faculty of the University of Umeå was begun in the autumn term of 1968, and has been in progress for three years. The project was initiated by the Royal Commission on Qualifications (KU), as part of its terms of reference relating to the prognostic value of marks and test scores. This aspect of KU's inquiry has been accounted for in its special report 1970:20 under the heading "Study Success at the University of Umeå". Great weight has been attached to analyses of dropouts and study delays. In the autumn term of 1971, the project was enlarged to embrace students coming under the new system of fixed curricula. This group consisted of freshmen who enrolled in the liberal arts faculty at the University of Umeå for the 1971 autumn term.

The aim is to make systematic analyses of freshmen groups and the subject matter they learn towards forming a more stable basis for the evaluation of a liberal arts education.

Scope:

Two study groups: 996 students starting their studies in september 1968. 693 students starting their studies in september 1971.

Methods:

Questionnaires, follow-up of registers, statistical analyses.

Main findings:

To judge from our follow-up to date, a very small group (less than 10 %) did not take any form of education for two years after the follow-up started. However, a large group had changed their study plans and "switched education". Transfers had been made to 1. a liberal arts faculty at another university; 2. another faculty or professional school; 3. Other post-secondary or secondary education. Which of these transfers should be designated as "dropping out from studies" is a question of how one defines dropout. We see here that the number of dropouts is entirely a function of the study goal and study level to which these are related. It is important to distinguish between dropouts from the system aspect and from the individual aspect. It

will not do simply to put an equals sign between dropping out from studies and failing in them.

The present investigation also offers and exhibit in evidence against the use of degree-granting rates as an efficiency measure. Our results accordingly show that dropouts from a liberal arts faculty should be seen in relation to the educational system as a whole.

Bibliographic references:

SOU 1970:20 "Behörighet, meritvärdering, studieprognos". Specialundersökningar av kompetensfrågor. (Qualifications, merit evaluation, study forecasting. Special studies of matters concerning formal qualifications). (In Swedish).

Elgqvist-Saltzman, Inga Analys av studieresultat i relation till bakgrundsdata, studiedecidering och studieaktivitet på några studentgrupper i Umeå. (Analysis of study results in relation to background data, study decision and study activity in some groups of students in Umeå). Universitetsforlaget, Oslo, 1970. (In Swedish).

Elgqvist-Saltzman, Inga Utbildnings- och elevanalyser - Studieavbrott vid filosofisk fakultet i Umeå. (Education and student analyses. Drop-outs from the liberal arts faculty at Umeå). University of Umeå and Umeå School of Education, 1972, 23 p + app. (In Swedish).

73

Project title: Evaluation of Decentralized University Education

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Sigbrit Franke-Wiberg, Sten Henrysson, Martin Johansson, Annagreta Råberg

Number of researchers: 3 Other personnel: -

Starting date: 1970 Date of completion: 1972

Source of finance: The Office of the Chancellor of the Swedish Universities

Background and aims: The 1968 Educational Commission suggested a wider distribution of higher education according to the regular university programs. At three places in northern Sweden, this new form of education

started on trial in the autumn of 1970. Investigations were made as to what characterized the students who attended the courses and how their academic progress came out compared to that of students at an ordinary university.

Scope: The subjects were 217 students in Decentralized University Education 1970-71 and 145 mathematics students at the University of Umeå. Ten reports concerning particular matters and groups have been published in the project.

Methods: Two questionnaires have been the main instruments for collecting data. An intelligence test, WIT III, and a test on reading comprehension were used. Attitude scales and questionnaires for the students' evaluation of the teaching and the literature of the programmes were distributed and collected. The success of the students was recorded from points acquired in all partial courses during the year.

Main findings: More of the students in Decentralized University Education than at the university were older, had a family and a professional position. More than 50 % claimed that they would not have gone to the university of the region if the Decentralized Education had not started. The overall attitudes to the teaching and this form of education were positive. Three out of five subject groups showed slightly better results than comparable university groups although academic aptitude and intelligence did not differ on tests. Other factors that seemed to be connected with academic success were the time spent on reading and a professional aim for the studies.

Bibliographic references:

All reports are in Swedish.

Franke-Wiberg, Sigbrit et al Systematiserad decentraliserad universitetsutbildning - en kartläggning. (Systematized decentralized university education - a survey). University of Umeå and Umeå School of Education, 1971, 55 p.

Franke-Wiberg, Sigbrit Systematiserad decentraliserad universitetsutbildning. Lärargruppens sammansättning och attityder. (Systematized decentralized university education. Composition and attitudes of the teacher group). University of Umeå and Umeå School of Education, 1971, 31 p + app.

Franke-Wiberg, Sigbrit & Johansson, Martin Matematikstuderande vid systematiserad decentraliserad universitetsutbildning och vid Umeå universitet. (Mathematical studies in systematic decentralized university education and at Umeå University). University of Umeå and Umeå School of Education, 1971, 31 and 39 p respectively

Råberg, Anna-Greta Systematiserad decentraliserad universitetsutbildning - elevernas kursvärderingar och attityder till utbildningen. (Systematized decentralized university education - students' evaluation of courses and attitudes to education). University of Umeå and Umeå School of Education, 1971, 31 p.

Franke-Wiberg, Sigbrit & Johansson, Martin Systematiserad decentraliserad universitetsutbildning - de studerandes erfarenheter av läsåret 1970-71. (Systematized decentralized university education - students' experiences from the academic year 1970-1971). University of Umeå and Umeå School of Education, 1971, 44 p.

Franke-Wiberg, Sigbrit & Johansson, Martin Matematikstuderande vid systematiserad decentraliserad universitetsutbildning och vid Umeå universitet - erfarenheter av läsåret 1970-1971. (Mathematical studies in systematized decentralized university education and at Umeå University - experiences during the academic year 1970-1971). University of Umeå and Umeå School of Education, 1972, 34 p.

Råberg, Anna-Greta Undervisningsformer vid den systematiserade decentraliserade universitetsutbildningen. En jämförande studie. (Forms of teaching in systematized decentralized university education. A comparative study). University of Umeå and Umeå School of Education, 1972, 27 p.

Franke-Wiberg, Sigbrit et al Studieresultat vid systematiserad, decentraliserad universitetsutbildning läsåret 1970-71. (Study results in systematized, decentralized university education during the academic year 1970-1971). University of Umeå and Umeå School of Education, 1972, 33 p.

74

Project title: Evaluation of Physical Education

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Gudrun Hedberg, Sten Henrysson

Number of researchers: 1 Other personnel: -

Starting date: 1971 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims: From the beginning, the plan of the project referred to an investigation of the effect of marks in physical education on performance and interest. As grading in the comprehensive school already has been considerably restricted, the project henceforth has been concentrated on construction and evaluation of training instruments for different parts of physical fitness.

Scope: 920 pupils' atitudes to grading in physical education and with that, connected questions have been investigated.

Methods: The collection of data concerning the attitudes to grading in physical education was carried out with the aid of questionnaires addressed to pupils during April of 1969. It has been further realized through literary research and studies within the scope of physical fitness.

Main findings: Half of the pupils did not like being graded in physical education. The negative attitude was especially found in the group of pupils with a low mark in physical education. More than half of the pupils were of the opinion that, when grading in physical education, equal regard should be given to performance, on the one side, and application and interest, on the other side.

Half of the pupils were positive to rejecting marks in physical education and a third were negative. A positive attitude to rejecting marks was found especially among the pupils with a low mark in physical education.

Bibliographic references: Hedberg, Gudrun Gymnastikundervisningen på gymnasiet. Del 3. Elevernas inställning till betygsättning. (The teaching of physical education in the secondary school. Part 3. The pupils' attitudes towards marking). University of Umeå and Umeå School of Education, 1971, 32 p. (In Swedish).

75

Project title: Physical Education in the Secondary School

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Gudrun Hedberg, Sten Henrysson

Number of researchers: 1 Other personnel: -

Starting date: 1968 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: In February 1967, the National Board of Education arranged a symposium on the teaching of gymnastics. It became evident during the symposium that very few psychological and educational studies directly bearing on physical culture have been undertaken.

This is especially true of research that can be applied to Swedish conditions. It was stated at the symposium that more information is required on the way gymnastics is taught in schools and also on the attitude of the pupils and the teachers to this subject.

The aim of the investigation is to throw light on

a) The organization of gymnastic instruction in the second year of the secondary school as well as the attitude of the teachers to various problems concerning the content of the subject, its objectives and grading.

b) The attitude of the pupils to gymnastic instruction.

c) The pupils' interest and participation in spare time athletic activities. The underlying purpose of the investigation was to extend the basis for reviewing the objectives and organization of the subject of gymnastics.

Scope:

The investigation has included random sample tests from the counties of Malmöhus, Stockholm, Örebro and Västerbotten. In all, the investigation included 920 secondary school pupils and 73 teachers of gymnastics.

Methods:

The collection of data was carried out with the aid of questionnaires addressed to both teachers and pupils during the period April 21st - 25th, 1969, and the questions were concerned with the instruction given during the school year 1968-69 in those classes chosen for inclusion in the investigation.

Main findings:

All teachers had legitimate education. There were great differences between the teachers concerning the actual amount of time devoted to different parts of the instruction.

Most of the teachers were of the opinion that the first objective of physical education was "to give recreation, good condition and comprehensive training of the movement apparatus".

Physical education was one of the three most popular subjects in comparison with six other subjects.

There were great differences between the wishes of girls and boys as to the distribution of various principal parts. The three most popular activities among the girls were jazz ballet, badminton and volleyball and among the boys, down hill skiing, ice hockey and handball.

More boys than girls have taken part in athletic spare time activities. There was also a difference in the selection of athletic spare time activities among the boys and the girls.

Bibliographic references:

All reports are in Swedish.

Hedberg, Gudrun Gymnastikundervisningen på gymnasiet. Del 1. Nuvarande uppläggning enligt lärarenkät. (Physical education

in the secondary school. Part 1. The instruction of today according to a teacher questionnaire). University of Umeå and Umeå School of Education, 1970, 60 p.

Hedberg, Gudrun Gymnastikundervisningen på gymnasiet. Del 2. Lärarnas inställning till ämnet. (Physical education in the secondary school. Part 2. The teachers' attitudes towards the subject). University of Umeå and Umeå School of Education, 1970, 38 p.

Hedberg, Gudrun Gymnastikundervisningen på gymnasiet. Del 3. Elevernas inställning till betygsättning. (Physical education in the secondary school. Part 3. The attitudes of the pupils towards marking). University of Umeå and Umeå School of Education, 1971, 32 p.

Hedberg, Gudrun Utvecklingen av skolgymnastiken och gymnastiklärarutbildningen i Sverige. (The development of physical education and the education for teachers in physical education in Sweden). University of Umeå and Umeå School of Education, 1970, 63 p.

Hedberg, Gudrun Gymnastikundervisningen på gymnasiet. Historisk bakgrund samt lärares och elevers syn på ämnets nuvarande utformning. (Physical education in the secondary school. Historical background and the teachers' and the pupils' view of the present shaping of the subject). University of Umeå, 1972, 112 p.

76

Project title:	Research on Physical Activity in Leisure Time
Carried out at:	The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå.
Project leader:	Sten Henrysson, Åke Fjellström
Number of researchers:	1 — Other personnel: -
Starting date:	1969 — Date of completion: Uncertain
Source of finance:	The National Board of Education
Background and aims:	To study and describe physical activity among adults over 18 years of age as a function of age, sex, occupation, physical education in school and other variables. To study attitudes

to and reasons for physical activity and also wants and needs for physical activity. To develop useful and reliable methods for measuring 1) physical activities in leisure time and 2) the psychological and physiological effects of these activities.

Scope: Four surveys, including personal interviews with 1,200 persons, have been performed. In May 1972, a study of methods in research on physical activity was under report.

Methods: Personal interviews completed with diaries.

Main findings: The results so far show a strong interest in physical activity but this interest leads to a regular activity for relatively few persons. Diaries have in the last survey been a good complement to personal interviews.

Bibliographic references: -

77

Project title: The Teaching of Elementary Orienteering

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Sten Henrysson

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims: The aim is to analyse the present situation and develop better methods and material for grades 1-6 of the elementary school.

Scope: -

Methods: Interviews with teachers. Achievement tests and questionnaires to pupils. Analysis of curriculum and teaching material. Construction of new curriculum and material.

Main findings: Simple and useful method for the average teacher and plans for curriculum and material.

Survey of the present situation.

Bibliographic references:

All reports are in Swedish.

Almroth, Vibeke Undervisning om karta och kompass på grundskolans mellanstadium. (Instruction in map-reading and the use of compass in grades 4-6 of the comprehensive school). University of Umeå and Umeå School of Education, 1970, 36 p + app.

Almroth, Vibeke Elementär orienteringsundervisning. Del 1. Undervisning om karta och kompass i grundskolan - en belysning genom undersökningar av elever i gymnasieskolans första årskurs. (Elementary instruction in Orienteering. Part 1. A study of knowledge in grade 1 of the secondary school). University of Umeå and Umeå School of Education, 1972, 30 p + app.

Almroth, Vibeke et al Elementär orienteringsundervisning. Del 2. Undervisningen om karta och kompass i ett antal låg- och mellanstadieklasser enligt lärarintervjuer. (Elementary instruction in orienteering. Part 2. Teaching practice in grades 1-6 of the comprehensive school, a survey of teachers). University of Umeå and Umeå School of Education, 1972, 26 p.

78

Project title: Literacy in Sweden

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Egil Johansson, Sten Henrysson, Gösta Berglund.

Number of researchers: 1 Other personnel: 2

Starting date: 1968 Date of completion: -

Source of finance: The Social Science Research Council

Background and aims:

The problems of literacy and illiteracy are very important in the developing countries today. Literacy and development are studied by historians also in the West. In Sweden and Finland there are special kinds of historical sources about literacy, namely catechetical parish records. In these records, all members of the parishes are registered with marks on their reading skill, on their ability to memorize the catechism and

on their comprehension of the catechetical knowledge. Such records are given for some of the dioceses since about 1650. In the first period, about 1650-1750, reading and memorizing marks are dominating. More and more information about the individuals is included: birth and migration, for example, together, naturally, with information about name, sex, marriage status, family size, some social data and so on. Such a record with the parishioners listed family after family was often used for five to ten years or more in the catechetical examinations. This makes follow-up studies possible over specific points of time.

Scope:

A sample of parishes during several periods.

Methods:

1. To follow each individual in the examination records and in parallel sources and collect data about reading, memorizing, comprehension, school attendance, migration, profession and so on.

2. To code these data and process them in a computer.

3. To evaluate the data and find out typical patterns about profession, migration, reading, school attendance and so on.

Main findings:

1. In some parishes reading marks can be found from about 1650.

2. Such reading marks are given for all the parishioners - children and adults.

3. During the period for compulsory school - from 1842 - there are, in Northern Sweden, many children who still had only the traditional education at home - but all had reading marks in the examination records.

4. These marks such as reading, memorizing and comprehension in catechetical examination records seem to have some dependence on such variables as profession, migration and school attendance.

Bibliographic references:

All reports are in Swedish.

Johansson, Egil Undersökningar av anteckningar för läskunnighet, utantillkunskaper, begrepp och förstånd i Bygdeå sockens husförhörslängder för åren 1863-73. (Studies of notes concerning reading ability, knowledge by rote, insight and understanding in the catechetal rolls of the parish of Bygdeå, 1863-1873). University of Umeå, 1967.

Johansson, Egil Kvantitativa studier av alfabetiseringen i Sverige. Exempel på källmaterial, metoder och resultat. (Quantitative studies of literacy in Sweden. Examples of source material, methods and results). University of Umeå and Umeå School of Education, 1969, 46 p.

Johansson, Egil Kvantitativa studier av alfabetiseringen i Sverige. (Quantitative studies of literacy in Sweden). Historielärarnas Förenings årsskrift, 1969/70, pp. 78-93.

Johansson, Egil Kvantifiering av de kyrkliga husförhörslängdernas innehåll. Allmänna metodfrågor. (Quantification of the content of the catechetal rolls. General questions of method). University of Umeå, 1970.

Johansson, Egil En studie med kvantitativa metoder av folkundervisningen i Bygdeå socken 1845-73. (A quantitative method study of elementary education in the parish of Bygdeå 1845-1873). University of Umeå, 1972, 254 p + app.

Åkerman, S. et al Befolkningsrörlighetens bakgrundsvariabler - ett försök med AID-analys. (Background variables of population mobility - an experiment using AID-analysis). University of Uppsala, 1971.

79

Project title:	Evaluation of Education
Carried out at:	The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå
Project leader:	Sven Janson
Number of researchers:	1 Other personnel: -
Starting date:	1971 Date of completion: 1974
Source of finance:	The National Board of Education

Background and aims:

Evaluation of education can be done from its relation to stated objectives. Results on terminal tests, with the content structured in levels of behavior, will be used as criteria. As predictors the following variables will be used: variables of talent, results on tests of previous knowledge, taxonomy - no taxonomy of objectives, results on different levels of behavior. The purpose is to develop models and methods for evaluation of education in terms of taxonomy of objectives and descriptions of content. To these are related descriptions of behavior and formative (diagnostic) as well as summative tests. The tests will be a guidance for teachers, as well as for pupils, regarding their relations to methods, means, performances and stated objectives.

Scope:

Studies of central tests in mathematics, examination of shorter parts of education in mathematics and social studies in secondary school. Before the examination of an extended central test in mathematics, some of the pupils have had the opportunity of using a description of the objectives.

Methods:

Study of literature. Seminars with the members of the reference group. Validation of levels of behavior in the problems. Construction of objectives in terms of descriptions of content and behavior to these related examples. Terminal tests related to the description of the objectives. Statistical analyses.

Main findings:

The examination is in its preparatory phase.

Bibliographic references:

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80

Project title: A Survey of the Lapps' Need of Education

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Henning Johansson, Sten Henrysson

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: Lapp children have a modern school course in their nomad schools. Pupils in nomad schools are mainly children of reindeer-keeping Lapps. However, only a third of the Lapps herd reindeer. This fact is important as many Lapp children have to accept other work than reindeer keeping. Very little is known about their need of education. The purpose of this project is to find out the need of education of reindeer-keeping and non-reindeer-keeping Lapps.

Scope: The selection takes accound of 200 people. 100 reindeer-keeping and 100 non-reindeer-keeping Lapps.

Methods: The investigation takes the form of interviews in accordance with a standardized questionnaire.

Main findings: Data processing is in progress.

Bibliographic references: -

81

Project title: Prediction of Success in Secondary School Studies

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Gerhard Nordlund, Sten Henrysson

Number of researchers: 1 (+1) Other personnel: 1 (+ 1)

Starting date: 1965 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims:

The Commission on Secondary Schools, in its report, discussed the problem of selection of pupils for secondary schools. It was assumed that school marks would continue to decide selection of pupils, but the commission also emphasized the need of additional instruments for selection. The commission noted that little research had been carried out in Sweden on this particular stage. Prediction would presumably be improved if, in addition to marks, it were possible to use the results of aptitude tests, for example, and/or objective achievement tests. The commission called attention to this problem with the following words: "It seems to be desirable that Swedish tests should be drawn up and their value as complementary aids for secondary school admission further investigated. The National Board of Education should arrange for the necessary steps to be taken".

The main objective of the investigation has been to ascertain to what extent prediction of success in secondary school (and technical school) may be improved with the help of aptitude and/or objective achievement tests. At present, admission is based on the total of the final marks awarded by the comprehensive school.

Scope:

The investigation included about 3,850 pupils in the county of Västmanland attending the eigth grade in the spring term of 1965. These pupils have been followed up through the comprehensive school, the secondary school and the technical school. The pupils of the secondary school have been of special interest here.

Methods:

During the spring of 1965, tests were drawn up which were used in the spring of 1966 in social science, Swedish, English, physics, chemistry and mathematics. The tests were tried out on three occasions. The standard test for the eight school year, the list of marks for the eight and ninth grades, the national registration numbers of the pupils and particular data such as parents' or guardians' employment have been collected. Pupils participating in the investigation also took a group intelligence test (WIT III). Along with this test, the pupils were asked to answer a questionnaire covering various social aspects as well as attitude to school, lists of marks and results of the standard test were collected.

The statistical methods of analysis which have been used for prediction have, for the most part, been covariance and multiple regression analysis.

Main findings:

Having average grades in the second and third year as a measure of success in the secondary school, it can be said:

1. The grade point average (GPA in 9th) has the highest prognostic value.

2. Aptitude tests tend to have the lowest prognostic value.

3. Achievement tests tend to have somewhat better prognostic value than aptitude tests but are less predictive than the grade point average.

4. Prediction will be somewhat better if the grade point average is added to aptitude and achievement tests.

5. The grade point average varies among the different branches in the secondary school.

6. The increase in prediction which is obtained by adding aptitude and achievement tests is of the same size for all branches.

7. In spite of the fact that the grade point average is of equal size for both sexes and the boys have higher points in the aptitude test, the girls have higher marks in the second year of the secondary school.

8. If the social groups are placed side by side in the grade point average, no differences in the success of the secondary school are obtained.

9. The correlation of the predictors with the average grades as a criterion change very little from the second to the third year of the secondary school.

10. The prediction is considerably less certain in the technical school than in the secondary school.

Bibliographic references:

All reports are in Swedish.

Fischbein, Siv & Henrysson, Sten Prognos av framgång i högre studier. En litteraturöversikt. (Prediction of success in higher studies. A summary of relevant literature). Stockholm School of Education, 1966, 36 p.

Henrysson, Sten Prognos av framgång i gymnasium och fackskola. Problem, planering och datainsamling. (Prediction of success in secondary school and continuation school. Problems, planning and data collection). Stockholm School of Education, 1967, 36 p.

Henrysson, Sten & Jansson, Sven Rekrytering till fackskola och gymnasium. (Recruiting for the secondary school and continuation school). Stockholm School of Education, 1967, 48 p.

Nordlund, Gerhard Prognos av framgång i gymnasiet. I. Analys totalt och med uppdelning på kön. (Prediction of success in the secondary school. I. Total analysis and analysis fol-

lowing division into sexes). University of Umeå and Umeå School of Education, 1969, 24 p + app.

Nordlund, Gerhard Prognos av framgång i gymnasiet. II. Analys med uppdelning på linjer. (Prediction of success in the secondary school. II. Analysis following subdivision into branches). University of Umeå and Umeå School of Education, 1969, 20 p + app.

Nordlund, Gerhard Prognos av framgång i gymnasiet. III. En jämförelse av studieframgång mellan kön, socialgrupper, linjer och gymnasier. (Prediction of success in the secondary school. III. A comparison of study progress between sex, social groups, branches and schools). University of Umeå and Umeå School of Education, 1970, 30 p + app.

Nordlund, Gerhard & Nilsson, Ingvar En komparativ studie av framgång i fackskola och gymnasium. (A comparative study of success in continuation school and secondary school). University of Umeå and Umeå School of Education, 1971, 19 p + app.

Nordlund, Gerhard & Nilsson, Ingvar Prognos av framgång i gymnasiet. IV. En studie med differentierade prediktorer och kriteria. (Predictions of success in the secondary school. IV. A study with differentiated predictors and criteria). University of Umeå and Umeå School of Education, 1972, 23 p.

Nordlund, Gerhard, & Jansson, Sven Gymnasieprognosundersökningens kunskapsprov i årskurs 9. Konstruktion, analys och genomförande. (The achievement tests in the ninth year. Construction, analysis and evaluation). University of Umeå and Umeå School of Education, 1972, 80 p.

82

Project title:	Construction and Evaluation of Criterion-Referenced Tests
Carried out at:	The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå.
Project leader:	Ingemar Wedman, Sten Henrysson
Number of researchers:	1
Other personnel:	-
Starting date:	1971
Date of completion:	1973
Source of finance:	The Social Science Research Council

Background and aims: For the last few years the demands for criterion-referenced tests have been raised. In this project our interest is first of all to study how one should evaluate criterion-referenced tests. As a consequence of reduced variation in total test score, conventional measures of reliability and validity as well as measures of discrimination ability of the items can not be applied to criterion-referenced tests. The project intends to investigate some new indices of reliability and validity for criterion-referenced tests in order to see in what contexts and under what circumstances they are usable. Further, the project will investigate how the reliability and validity are affected by different discrimination indices which have been proposed for selecting items in criterion-referenced tests.

Scope: In a first report the project has described criterion-referenced tests and given a brief account of the research in this domain. In this report the project has also presented some possible aspects concerning the construction and evaluation of these tests.

Methods: Two parallel criterion-referenced tests have been constructed. These tests have been administered to about 300 pupils in grade 8 of the comprehensive school. In this investigation the project has used the following design: pretest-posttest-posttest. The project intends to use the results of this study to compare the above mentioned indices.

Main findings: -

Bibliographic references:

Wedman, Ingemar Problem vid konstruktion och utvärdering av kriterierelaterade prov. (Problems in construction and evaluation of criterion-referenced tests). University of Umeå and Umeå School of Education, 1971, 15 p. (In Swedish).

83

Project title: Educational and Vocational Choice in Secondary School and Continuation School

Carried out at: The Department of Education, University of Umeå and Umeå School of Education, S-901 87 Umeå

Project leader: Carl Åsemar

Number of researchers: 1 Other personnel: -

Starting date: 1968 Date of completion: 1973

Source of finance: The Social Science Research Council

Background and aims: The establishment of the continuation school made it interesting to compare the pupils of the two school forms in secondary education with respect to:

1. Recruitment to secondary school.
2. Educational choice.
3. Vocational choice.
4. The dropout problem.

Scope: 2,000 pupils

Methods: Follow-up of all pupils who entered secondary school in 1968. Questionnaire is given in the beginning and at the end of the education. Intelligence test (WIT III) is given in the beginning.

Main findings: Results about the recruitment are available.

The most attractive courses in the secondary school were the humanistic and the natural science courses, and in the continuation school, the course of social studies. There was a rather distinct difference between pupils in the secondary school and in the continuation school concerning average marks and average intelligence scores. In both cases, pupils in the secondary school scored better.

Bibliographic references:

Henrysson, Sten & Åsemar, Carl Rekrytering till gymnasium och fackskola i Västerbotten och Örnsköldsvik, hösten 1968. (Recruitment to secondary school and continuation school in the county of Västerbotten and the city of Örnsköldsvik, autumn term 1968). University of Umeå and Umeå School of Education, 1969, 18 p + app. (In Swedish)

84

Project title: University Milieu, Studies and Political Activity

Carried out at: The Department of Sociology, University of Umeå, S-901 87 Umeå

Project leader: Georg Karlsson, Göran Cigéhn, Johnny Carlsson

Number of researchers: 2 Other personnel: -

Starting date: 1969 Date of completion: 1973

Source of finance: The Office of the Chancellor of the Swedish Universities and the Social Science Research Council

Background and aims: It has often been maintained that "left-wing students" more frequently come from the upper classes than from the working class, and that student riots on the whole can be explained by generation conflicts. After examining some of our own data and other data it became obvious that such statements have a weak basis.

The aim of the investigation is to throw some light upon the impact of university life on students and their attitudes and activities, especially as to studies and politics. In short, the aim is:

1. To describe the social and economical situation of the students and the changes taking place in that situation during the time the students attended the university,

2. to explain their attitudes and activities (and actions) with respect to:

a) their social and economic situation
b) the university milieu and changes within it
c) conditions on the macro-level and related changes.

Scope: The population under study comprises all the freshmen that were registered at the university and university level colleges of Umeå, in the autumn term of 1970. Foreign students were excluded from the study and those born in 1939 and before.

Methods: The project has chosen a longitudinal design where the students (the panel) are measured at three different points in time: the first time when they started their university studies, then after one year at the university and finally after two years at the university. In order to describe the milieu surrounding the students and the university, some other data have also been collected. When special incidents occur which have something to do with the students the project collects data about it. The project also intends to collect data which are difficult to get with a questionnaire.

Main findings: The findings will be presented during the spring of 1973. In a first report some data on a descriptive level have been presented

Bibliographic references:

Cigéhn, Göran & Karlsson, Johnny Umeåstudent 1970. Några data om de nyinskrivna studenterna vid Umeå universitet och högskolor höstterminen 1970. (Students in Umeå 1970. Some data concerning freshmen at the University of Umeå and the university level colleges in Umeå, autumn term 1970). University of Umeå, 1971, 58 p. (With an English summary).

85

Project title: Structural Transformation and Political Socialization

Carried out at: The Department of Political Science, University of Umeå, S 901 87 Umeå

Project leader: Gunnel Gustafsson

Number of researchers: 1 Other personnel: -

Starting date: 1969 Date of completion: 1972

Source of finance: The Social Science Research Council

Background and aims: In this study attention has been paid to the following questions:

1. How does the structural transformation affect

a) children's political interest

b) parents' political interest

c) differences between children and parents with respect to political interest

d) teachers' political interest

2. How does the structural transformation affect the influence exerted upon children by the following agents of socialization:

a) parents

b) playmates

c) teachers

d) teaching

e) mass media

Scope: The analysis is based on empirical data collected in three Swedish communities of equal population and approximately equal density, namely Jokkmokk (regressing), Ovanåker (static) and Upplands-Bro (expanding). 20 % of the children in grades 1, 6 and 9 in three Swedish communities were randomly selected. These children (N = 190) and their teachers (N = 75) were interviewed and so were the children's parents (N = 365).

Methods Survey.

Main findings: The empirical data indicate that political socialization is related to the structural transformation. In two cases only, i.e. Swedish foreign aid and migration from rural areas, does the subsocietal situation leave children and parents, as well

as teachers, unaffected. The relationships between the rate of change in the subsociety on the one hand and the political interest and the readiness to take an active part in politics on the other are clear and unambiguous. When the administrative unit undergoes expansion or regression, children, parents and teachers get more interested in politics. The children and their teachers also feel more inclined to take an active part in politics.

Bibliographic references: -

86

Project title: Self-instructional Methods for Teaching of the Deaf (Project SMID)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Sven Amcoff, Karl-Georg Ahlström

Number of researchers: 3 Other personnel: 1

Starting date: 1965 Date of completion: 1973

Source of finance: The National Board of Education

Background and aims: The principal aim is to develop a system of teaching aids for teaching Swedish to aurally handicapped children in the special schools for the deaf. The system is principally designed for teaching in grades 1 and 2 but some of the instruction will also be applicable to nursery school.

Scope: The revised material is being tested in 10 classes.

Methods: The teaching aid system takes as its point of departure the child's spontaneous need for language, and attempts to exploit this need. The preliminary training, however, is concentrated on furnishing the pupils with the tools they need for isolating and identifying the structural elements of the language. The core of the material is the teachers' guide which is divided into exercises which specify the teaching process and the use of the materials (overhead transparencies, word cards, picture cards, working materials of different kinds and a teaching machine).

Main findings: Additional results will be published when the research has been completed.

Bibliographic references:

Ahlström, Karl-Georg On evaluating the effects of schooling. Pedagogiska skrifter (Proceedings of the international congress on education of the deaf), Vol. 1, No. 251, 1972, pp. 322-345. (In Swedish).

SMID, Swedish (7-8 year-olds), for deaf children and those with impaired hearing. Method-system development. School Research Newsletter, No. 14, 1970, National Board of Education, Stockholm, 10 p. (In English).

Amcoff, Sven Programmed instruction for Swedish children aged 7-10 years who are hard of hearing. American Annals of the Deaf, No. 113, 1968, pp. 318-326. (In English).

Amcoff, Sven Technische Hilfen für Programmiertes Lernen und ihr Einsatz bei hörgeschädigten Kinder. (Technical aids in programmed learning for hearing-impaired children). Hörgeschädigte Kinder, No. 8, 1971, pp. 174-177. (In German).

87

Project title: Relations Between Linguistic Skills among Deaf Children in Grades 5 and 7. Substudy to Project SMID.

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Sven Amcoff

Number of researchers: 1 Other personnel: 1

Starting date: 1969 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: It is supposed that the extent to which various linguistic skills are organized in patterns is important for evaluation of teaching methods. The aim of this study is to find such patterns and relate different linguistic skills to each other and certain background variables.

Scope: Testing 165 pupils in grades 5 and 7 in the Special School for the Deaf, with 22 linguistic tests.

Methods: The composition of the test battery:

5 listening tests
2 speech intelligibility tests
3 tests of interpretation of signs
2 tests of finger-spelling
2 tests of speech reading
18 tests of lexical knowledge and knowledge of morphological or syntactical rules.
Nonverbal intelligence test (WISC) and background variables as hearing loss.

Main findings: The results are to be published in 1973.

Bibliographic references:

Ahlström, Karl-Georg On evaluating the effects of schooling. Pedagogiska skrifter (Proceedings of the international congress on education of the deaf), Vol. 1, No. 251, 1972, pp. 322-345. (In Swedish).

88

Project title: The Swedish used in the Compositions of Severely Hearing-Impaired Pupils in Grades 5 and 7. (Subproject to Project SMID.)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Sven Amcoff, Nancy Belmore, Maija Kalin, Karl-Georg Ahlström

Number of researchers: 3 Other personnel: 1

Starting date: 1970 Date of completion: 1972

Source of finance: The Bank of Sweden Jubilee Fund

Background and aims:

It has usually been assumed that the speech of hard-of-hearing have learned a sign language which has a structure different from that of spoken language.

The aim of the project is to analyze the hard-of-hearing child's written production in order to: 1) specify deviations from the language behavior of individuals with normal hearing and 2) relate these deviations to underlying factors, e.g. hearing capacity, intelligence, social background etc.

Scope: Analysis of the compositions of 154 pupils in grades 5 and 7 of a Special School for the Deaf.

Methods: The analysis is qualitative and includes judgements of the pupils mastery of certain syntactic units.

Main findings: -

Bibliographic references: -

89

Project title: Problems of Transition between Grades and School Forms

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Rune Axelsson, Bengt Ekman, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: -

Starting date: 1971 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims: The aim of the project is to find ways during the introductory period when a student is just starting a particular division in the school system to:

1. make it easier to draw up indivudual programs by giving the prospective teacher the best possible information concerning both the students knowledge and abilities and their non-cognitive functions, as well as their work habits and social relations,

2. to involve the students in the planning of the instruction and thereby achieve increased motivation,

3. to inform the students about the nature of the work in the new division.

Scope: Experimental and control groups including 11 schools, 25 classes, 540 pupils, their parents, teachers and advisors, as well as school administrators.

Methods: Review of the literature on the evaluation of non-cognitive functions. Procedures used with the experimental group: In grade 6 procedures drawn up by teacher groups were used, as

well as teacher contacts between divisions, student advisor conferences and information to teachers, students and parents. At the beginning of grade 7, a comprehensive diagnosis of the pupils cognitive and non-cognitive functions was carried out, in order to make it easier to draw up individual student programs.

Measurements: The students' emotional and social adaptation was determined by questionnaires. Standardized tests, progress and grades are collected from grade 6 and measurements of the students' knowledge and abilities in, mainly, mathematics, English, Swedish and civics takes place in grade 7. The experience of the pupils, the advisors, and the teachers and school officials with the procedures used during the transfer stage will be evaluated. In addition, while the effects of the procedures being used with the experimental classes are being recorded, there will be a succesive follow-up of the processes being used in the control classes.

Main findings: No conclusions are yet available.

Bibliographic references: -

90

Project title: Multi-Channel Learning. (Substudy to Project SMID.)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Bo Hammarstedt, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: -

Starting date: 1969 Date of completion: -

Source of finance: The National Board of Education

Background and aims:

The aim of the investigation is to study the so-called multi-channel hypothesis, which states that learning can be expected to proceed more rapidly if the instruction material is simultaneously presented via two or more sensory channels than if only one channel is used.

The investigation consists, in part, of an analysis of the theoretical background of the multi-channel hypothesis, in part, of an empirical study of a particular kind of audio-visual instruction.

Scope: The experimental part of the investigation is divided into three sub-experiments, with 40, 80 and 84 subjects, respectively.

Methods: The teaching material consists of auditory and visual stimulus components which, based on certain principles, can be combined into audio-visual stimuli. A symbol has been associated with each audio-visual stimulus. Using the paired-associate method, auditory stimuli alone are presented, visual stimuli alone, or a combination of the two, i.e. audio-visual. The subjects respond with the appropriate symbols. The basic method is as follows: One group uses auditory stimuli for n trials, visual for n trials and audio-visual for n trials. Another group is presented with the same classes of stimuli, but in a different order. A third group is presented with only audio-visual stimuli for n, 2n or 3n trials. The learning rate is recorded and retention is measured by tests which contain only auditory, only visual, or only audio-visual stimuli. Variations of the method (e.g. differences in the number of presentations per trial, exposure time, etc.) are being tested.

Main findings: On audio-visual presentation subjects tend to utiliqe a single channel, i.e. to block out the other channels. The channels blocked vary from individual to individual. The conditions which determine individual choice are being studied, as well as the conditions under which blocking tends to occur.

Bibliographic references: -

91.

Project title: Pedagogical Studies of the Study Situation of the Visually Handicapped (Project PUSS)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Bengt Lindqvist, Nils Trowald, Karl-Georg Ahlström

Number of researchers: 2 Other personnel: 1

Starting date: 1969 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims:

Background: Visual handicaps lead to both primary and secondary difficulties in studying and a number of problems arise when the visually-handicapped must use special information media as a replacement for ordinary writing and other visual material, such as pictures, graphs, etc.

Aim: The aim of the project is to describe and improve the learning and study situation of the visually-handicapped and particularly investigate problems of special media: the talking book, Braille, and tactile graphic information.

Research problem: Can effective methods be developed for:

a) the learning and reading of Braille

b) the use of the talking book

c) the effective use of graphic information

d) making it easier for those with limited vision to read ordinary writing

e) making it easier for the visually-handicapped to adapt psychologically.

Scope:

Evaluation of the method in small groups of subjects. Each group characterized by a certain level of skill in Braille reading.

Methods:

A study of the available literature was carried out when the project started. A number of questionnaires have been sent to different groups of students and teachers in order to get a basic information. Experimental studies with experimental and control groups are in progress.

Main findings:

1. Concerning the integration of the visually-handicapped in primary school, one of the investigations shows that the system used functions quite well with the exception of the provision of literature and information to the teachers.

2. The published bibliography includes 400 titles in areas relevant to the project.

3. The investigation of verbal descriptions of visual material in the talking books suggests that it is only worthwhile to give short, summary descriptions of the main information in illustrative material, the detailed descriptions are more or less meaningless.

4. Investigations of the talking book show that an increase in speech rate of up to 20 % (using accelerated speech) will be tolerated by an untrained listener. In addition, the investigations of the talking book have shown that visually presented information is clearly inferior to auditory information, at least with respect to short-term memory.

5. The investigations concerned with difficulties in studying

show that all student groups have problems with talking books, primarily an inability to read quickly and to find one's place in the talking book.

Bibliographic references:

All reports in English.

Östberg, Ann-Marie & Lindqvist, Bengt Learning problems in connection with special information media - a selected bibliography. Uppsala School of Education, 1970, 51 p.

Children with defective vision. Summary of the problems and an attempt to formulate integrated course material. School Research Newsletter, National Board of Education, Stockholm, No. 16, 1970, 8 p.

Lindqvist, Bengt & Trowald, Nils (Eds.) European conference on educational research for the visually-handicapped. Uppsala School of Education, 1972, 90 p.

92.

Project title: English in the Primary School. (Project EPÅL)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Lennart Linell, Karl-Georg Ahlström

Number of researchers: 6 Other personnel: 2

Starting date: 1970 Date of completion: 1979

Source of finance: The National Board of Education

Background and aims:

It has been maintained that obligatory instruction in English ought to begin in grade one of the comprehensive school. The reasons given have been partly derived from learning theory, and partly from ideological principles: It has been thought desirable to improve the possibilities for general communication so that there will be more equality among men in various areas.

Before 1970 an average of 3.5 hours per week was spent on English from the fourth through the ninth grade, or a total of approximately 840 hours of instruction in the comprehensive school. Since 1970, these hours have been distributed over grades 3 through 9. The aim of the project is to investigate

the effect of distributing these 840 hours over grades 4-9, 3-9 and 1-9.

The effect will be measured in terms of cognitive, psychomotor and affective functions, both in English and in other subjects, especially Swedish and mathematics, but also French and German. The subject of Swedish is of particular interest, since changes in the timetable for English result in changes in the timetable for Swedish.

Scope:

The investigation includes a sample of 2,000 students. These children will be followed for nine years. Critical measurements will be made after 3, 6 and 9 years of instruction, respectively. The immigrant children in the group will be the object of a special study.

Methods:

The groups under study are divided into four treatment groups. One group begins English according to the study plans for grade 4, two groups according to the plan for grade 3, and one group begins English at the second semester in grade 1. The last-mentioned group and one of the groups which begin in grade 3 are using the same material and are being treated alike in every other way, except for the distribution of instruction hours in English. The other groups are using somewhat different material, but are otherwise being taught in approximately the same way. Each group contains appr. 10 % immigrant children.

At the end of each school year attitude measurements are made, as well as measurements of ability in Swedish and mathematics. The aim is to see what between-group differences there are which appear to be the result of the experimental treatment. Proficiency in English is tested after a certain number of instruction hours, the same for all groups. In addition, classroom observation are made in order to study teacher-pupil interaction during the English lessons.

One subgroup of the project-team is constructing teaching materials for the first three grades. The working principles used in the preparation of these materials have been arrived at by a thorough analysis of both Swedish instruction material in English as well as similar material produced abroad for English and other foreign languages. Oral communication skills are specially studied.

Main findings:

Since three of the groups do not begin English until the autumn term of 1972, no comparisons have yet been made. The methods and materials used in the other group have been evaluated by a battery of diagnostic tests administered on three different occasions. Special effort has been focused on the development and testing of methods for measuring pronounciation, intonation and proficiency in speaking. Measurements of Swedish and mathematics, as well as attitude, have also been made, and data analysis is in progress. Special attention is given to the achievements of the immigrant children.

Ongoing studies include methods of measuring pronounciation among nonliterate (in cooperation with the Department of Speech Transmission at the Royal Institute of Technology, Stockholm) observational studies in the classroom (interaction and efficiency studies) as well as evaluation of the methods and materials system being developed for the project.

Bibliographic references:

English, ages 7-9. Method system development. School Research Newsletter, National Board of Education, Stockholm, No. 11, 1970, 6 p. (In English).

93.

Project title: Immigrant School Beginners. (Substudy to Project EPÅL)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Lennart Linell

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1974

Source of finance: The Social Science Research Council

Background and aims:

The aim of the EPÅL project is to compare the effects of beginning the teaching of compulsory English in grades 1, 3 and 4. The investigation is carried out in a city where the proportion of immigrants of Finnish, Yugoslavian, Hungarian and Turkish nationality is high. The purpose of the substudy is to analyze the problems facing children with another mother tongue than Swedish when they begin grade 1 in the Swedish school system, and when the study of a second foreign language - English - begins either in grade 1, grade 3 or grade 4.

Scope:

The sample consists of 2,000 students. Approximately 10 % are immigrants. The total sample will be followed over 9 years, but the substudy is planned to be finally reported after 4 years.

Methods:

The data bank belonging to the EPÅL project containing results from various achievement tests and observations concerning teacher-pupil interactions will be utilized. As a complement to these data various sociometric measurements will be performed as well as interviews with pupils and their parents.

The immigrant children do not constitute a homogenous group either with respect to their native language, their proficiency in Swedish when they begin school or their parents' education and reasons for immigrating to Sweden. Therefore, the immigrant groups will be broken up into subgroups which will be studied longitudinally.

Main findings: Two separate studies have been performed in two of the treatment groups. The results do not reveal any differences in school performance and attitudes toward school in grade 1 between immigrant children and native-born Swedish children. However, in grade 1, the immigrant children are more isolated in the class than the Swedish children.

Bibliographic references: -

94.

Project title: Analysis of the Reading Process when Braille is Used. (Substudy to Project PUSS)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Margareta Löthman, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: -

Starting date: 1971 Date of completion: -

Source of finance: The National Board of Education

Background and aims: The aim of the investigation is to study the ability of the blind and the visually-handicapped to read Braille as well as to specify the relative importance of various factors in the reading process. These include the nature of the script itself, characteristics of the individual reader and, to some extent, factors connected with the teaching methods used.

Scope: -

Methods: A special apparatus has been constructed for registering the time and pressure used when different characters in Braille script are read in order to provide a detailed description of

the motor aspects of reading behavior. The apparatus is now being tested under various conditions.

Main findings: -

Bibliographic references: -

95.

Project title: Individualized Curricula and Ungraded Instruction

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Timo Malmberg, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: Varying from time to time

Starting date: 1970 Date of completion: 1977

Source of finance: The National Board of Education

Background and aims: Methods of controlling productivity for use in school and educational administration are being developed and tested. The primary aim is to achieve more individualized curricula and, from the point of view of business economics, to achieve a more adequate use of available resources. This includes trying to find out how appropriate and necessary it is to divide upper secondary students into groups with pre-set curricula, and then into classes, which move in parallel and step-by-step through semester and yearly courses, during which time the students study 10 to 12 subjects at the same time. A reason for the present system may be that, up to now, the available means for the management of the school and the direction of instruction have made any other approaches practically impossible, even if they were desirable. The aim of the project is therefore to develop and test a support system and methods for the administration of instruction, which can give the students greater freedom to chose what they will study, as well as giving the teachers and school authorities a way to use available resources more profitably and to adapt them to the needs of the students.

Scope: Administrative routines within a large secondary school, as well as curriculum, primarily subjects included in the science block.

Methods: The first phase consists of developing instruments for the assessment of students, the arrangement and routines for individualized study in a school which is not divided into classes, as well as a system for storing data in a computer. This work is in progress.

Only when this work has been completed evaluation techniques can be specified more clearly.

Main findings: Not presently available. Experimental design is still in progress.

Bibliographic references: -

96.

Project title: Problems of Psychological and Pedagogical Methods in Connection with the Adaptation to Work of the Mentally Retarded

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Rikard Palmér, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: -

Starting date: 1972 Date of completion: 1978

Source of finance: The National Board of Education

Background and aims: The project is based on investigations by Rikard Palmér, et al, which were concerned with predicting the ability to work of mentally retarded young people and adults. The data collected suggest that it is possible to predict their ability to work and what a suitable job for them would be. The current project is concerned with developing methods to be used for individual counselling of students who are completing special schools for the mentally retarded. A separate investigation, also based on the above-mentioned studies, is intended to investigate ways of influencing the work motivation of the mentally retarded.

Scope: The investigation is still in the planning stage, but is expected to include groups of students from three Swedish counties.

Methods: A basic idea in the investigation is to combine a multi-dimensional aptitude test with objective tests of work capacity as revealed by a number of previously constructed and tested measures of work capacity. Using these results, each individual is provided with a diagnostic and prognostic analysis of appropriate training or job placement. Suitable ways of using the test results will be investigated. Follow-up data will be collected and analyzed.

Techniques for influencing the motivation to work will be developed and tested.

Main findings: No results are presently available. We predict, however, that the use of the proposed new methods and techniques could lead to improved individual counselling of students in schools for the mentally retarded when they are preparing for the transfer from school to work, as well as giving teachers and work leaders better possibilities for positively influencing the individual student's motivation for work.

Bibliographic references: -

97.

Project title: The Social Adaptation of Hard-of Hearing Adults. (Substudy to Project SMID)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Anita Swärdström, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims: The aim is to study the economic, social and cultural environment of a group of hard-of-hearing adults, and to use the information gained to find out what factors are crucial in determining if a hard-of-hearing individual will be integrated into society or not.

Scope: All students (124) who completed schools for the deaf in 1957.

Methods: The following descriptive studies have been undertaken:

1. Data collection on the degree of hearing impairment.

2. Collection of data on school performance: diplomas, grades etc.

3. Measurement of language comprehension, i.e. the ability to scan a text, select what is important, answer simple factual questions, and draw certain conclusions from the material read.

4. Measurement of vocabulary size.

5. Judgement of the quality of their spoken language: Tape-recorded speech samples were played to people entirely unfamiliar with the speech performance of the hard-of-hearing. In addition, interpreters judged the speech on a five point scale.

6. Summary of their social status, taking into account:

a) type of school and profession
b) professional counselling
c) attitudes toward school and work
d) free-time activities and group memberships
e) friendships
f) civil status: married, engaged or similar
g) deaf and normal hearing relatives
h) parents' profession and occupation.

Main findings: Data analysis is in progress.

Bibliographic references: -

98.

Project title: The Use of the Talking Book. (Substudy to Project PUSS)

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Nils Trowald, Bengt Lindqvist, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: -

Starting date: 1969 Date of completion: 1974

Source of finance: The National Board of Education

Background and aims:

In the beginning of the 50's, the talking book began to be used in the instruction of the blind. Today the blind obtain most of their information from talking books, thus providing a reason for studying more closely how they function and the areas in which they are used. In an investigation (Lindqvist & Trowald, 1971) concerning the study situation of the visually-handicapped, it was revealed that the passive character of the reading is an obstacle to effective learning, and that listening is not as effective as visual reading. A number of researchers the world over e.g. Carter (1962), Nolan (1969) and Rothkopf (1970) are working on the problem of achieving a more active study situation and thus improving learning. The construction of questions on the content of the text material is an example of one measure taken to increase the level of activity. It has been tried, e.g., by Frase (1970). Using the background data described above, and taking as a point of departure earlier research results, the present investigation seeks to find suitable activation methods for the effective reading of talking books.

Scope:

Investigations using the tape recorder are one of the biggest sub-projects within the main project, and for this reason 4 investigations have been designed, one already in progress and the others in the planning stage. Approximately 400 subjects have already participated and it is planned to test an additional 200.

Methods:

An outline of study problems has been made with the help of a questionnaire with two-choice items sent to all the visually-handicapped in Sweden currently engaged in active studies. The major problem the questionnaires revealed, active listening, has since then been studied in greater detail, primarily through experimental studies: The overall effects of acquiring information auditorily in contrast with acquiring it visually have been compared in a study with experimental and control groups, which included sighted as well as visually-handicapped children. The methods used for activating listening were developed from studies of the available literature and empirical data and were tested with sighted children in grade 8. The material used was selected from a chapter in a textbook which the children were to use in the following term. Tests of retention were given at different times, and background variables were held constant. To achieve this, no fewer that 7 control conditions were required. In a recently undertaken extension of the methods for activation, an experiment has been planned in which the individuals themselves, with the help of a so-called compressed speech apparatus, can keep themselves active by adjusting the tape speed to their individual desires.

Main findings:

1. The students think that the talking book is too passive.

2. The tape recorder is hard to use because it is difficult to skim and almost impossible to skip around.

3. From the point of view of retention, listening is not as effective as visual reading.

4. Detailed description of the illustrative material in talking books has little or no value.

5. Untrained listeners will tolerate an increase in tape speed of up to 20 %, after which the sound is too distorted.

6. Of the methods of activation which were tested, it was shown that questions and recitation while the student is listening to the talking book are more effective than just listening. The results are not clear-cut, however.

7. Literature studies show that increasing tape speed by the use of the so-called sampling method (an increase without distortion of the sound) can be tolerated well beyond the above-mentioned 20 % increase in speed. Individual adjustment of the speed was not attempted, but will be later.

8. Technical solutions have been developed to solve the problem of finding one's place and skipping about in talking books. This has been achieved with the help of orientation signals between chapters.

Bibliographic references:

Lindqvist, Bengt & Trowald, Nils (Eds.) European conference on educational research for the visually-handicapped. Uppsala School of Education, 1972, 90 p. (In English).

99.

Project title: Reading Training in Special Schools for the Mentally Retarded

Carried out at: The Department of Educational Research, Uppsala School of Education, Östra Ågatan 9, S-753 22 Uppsala

Project leader: Maja Witting, Karl-Georg Ahlström

Number of researchers: 1 Other personnel: 1

Starting date: 1966 Date of completion: 1972

Source of finance: The National Board of Education

Background and aims:

The aim of the investigation is to compare two methods of reading instruction based on two different theories. In addition, the effects of using a self-instructional technique with each of the methods are being studied. The research is being conducted under four experimental conditions: Method I, Method I + self-instruction, Method II, and Method II + self-instruction.

Scope: The investigation began in the fall of 1966 and continued for three school years. It was carried out in 20 schools for the handicapped, starting in some instances with grade 1 and in others with grade 2.

Methods: The speed with which the instruction progressed was kept track of by continuous reporting from the field (17 reports per school year). At the end of each school year effects were determined by measuring ability to sound out a series of symbols, reading comprehension, reading speed and spelling ability. In addition, background data on the pupils were collected, and questionnaires were sent to the teachers concerning the design of the research, the effectiveness of the methods etc.

Main findings: The results, so far, concern the speed with which the instruction progressed and the teachers' opinion of the design and conduct of the research. Concerning the rate of speed of the instruction, the major result is that the students progress at a very slow rate. For example, it took from two to three terms for the pupils to learn the ten symbols, which must be mastered before training in sounding out symbol sequences can begin. One result of the students' slow rate of progress is that short-term investigation of intellectual activities is not appropriate for use in schools for the mentally retarded. As for the teachers' opinion of the design and conduct of the research, it was found that they were positive toward the investigation, because the instructions were comprehensive and easy to follow, the system of reporting used between the teachers and the research team was simple, and the research team showed a personal interest in the teaching situation.

Bibliographic references:

School for the handicapped. Swedish, learning to read (7-9 year-olds). Method system development. School Research Newsletter. National Board of Education, Stockholm, No. 15, 1970, 14 p.

100.

Project title: The Primary Socialization of Youth Delinquents: A Description of Girls at a State Youth Welfare School.

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Ann-Britt Bergman, Wilhelm Sjöstrand

Number of researchers: 2 Other personnel: -

Starting date: 1968 Date of completion: 1972

Source of finance: The Social Science Research Council

Background and aims: The intention of the investigation is a mapping of the socialization in terms of:

a) emotional interrelations within family or environment and

b) the type and extent of influence from fosterers in the transmission of society norms, values and common expectations of the individual within and outside the family.

The investigation is based upon current learning theories concerning secondary reinforcement.

Scope: 100 girls aged 16-21 enlisted in a state youth welfare school.

Methods: Testing of intelligence and personality, questionnaires, interviews, analyses of anamnestic data in different social welfare documents.

Main findings: Data processing is in progress.

Bibliographic references:

Herting, Gunnar & Åström, Monica Conditions of socialization for youth prison inmates. University of Uppsala, 1971, 175 p.

Holmer, Jan Avvikande beteende - en beskrivande översikt av pojkar på tre ungdomsvårdsskolor. (Deviating behavior - a descriptive survey of boys at three state youth welfare schools). University of Uppsala, 1971. (In Swedish).

101.

Project title: The Primary Socialization of Youth Delinquents: Conditions of Socialization for Youth Prison Inmates

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Gunnar Herting, Monica Åström, Wilhelm Sjöstrand

Number of researchers: 3 Other personnel: -

Starting date: 1963 Date of completion: 1971

Source of finance: The Ministry of Justice (The Swedish Correctional Board)

Background and aims: To describe the socialization climate and for each individual attempt validation by comparing climate and actual "personality".

Scope: All those sentenced to youth prison in Sweden in 1963, 1964 and 1965: 100 youths.

Methods: Interviews, intelligence tests, personality test (self description), analyses of statements made in different social welfare documents (social case history).

Main findings: The results gave strong confirmation to our initial opinion (derived from learning theory and research made in, mainly, USA and England) that emotional deprivation and/or inefficient norm teaching are the two basic psychological factors contributing to an abnormal (criminal) development.

Bibliographic references: Herting, Gunnar & Åström, Monica Primär socialisation hos ungdomsfängelseelever - en beskrivande undersökning. (Primary socialization of youth delinquents - a descriptive survey). University of Uppsala, 1972, 175 p. (In Swedish).

102.

Project title: The Primary Socialization of Youth Delinquents: Deviant Behaviour. A Descriptive Survey of Boys at State Youth Welfare Schools

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Jan Holmer, Wilhelm Sjöstrand

Number of researchers: 2 Other personnel: -

Starting date: 1968 Date of completion: 1971

Source of finance: The Social Science Research Council

Background and aims: To describe the background and actual status of a representative group of boys at three state youth welfare schools and to study the relation between variables characterizing the emotional climate and the type of norms and sanctions used in their homes and variables describing the boys' social adjustment.

Certain comparisons with normally adjusted boys have been performed.

Scope: About 200 delinquent boys and the same number of non-delinquent boys.

Methods: Analyses of data in social welfare documents, interviews, testing of intelligence, general orientation, knowledge of norms, extraversion, emotional adjustment and attitudes toward parents. Utilizing the documented data, the homes were rated in terms of emotional contacts and norm pressures.

Main findings: The emotional contacts as well as the norm pressures were weaker in the delinquent groups than in the non-delinquent groups and the attitudes toward the home and especially the father was more negative. It was impossible to relate the outset of emotional disturbance to a special incident or to a certain period.

Bibliographic references:

Holmer, Jan Avvikande beteende - en beskrivande översikt av pojkar på tre ungdomsvårdsskolor. (Deviant behavior - a descriptive survey of boys at three state youth welfare schools). 1971. (In Swedish).

103.

Project title: Analysis of Courses at the Department of Law, University of Uppsala

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Lars-Gunnar Holmström

Number of researchers: 2 Other personnel: 5

Starting date: 1970 Date of completion: 1974

Source of finance: The Office of the Chancellor of the Swedish Universities

Background and aims: The Law Student Project is an educational development project that started as a joint project between the Institute of Education and the Department of Law at the University of Uppsala, to deal with the problem of an extremely low output and very long study time for the basic degree (Bachelor of Law degree).

The long term goal is to develop and try out models for systems analysis of a vocational course at the post-secondary level. A more immediate goal is to analyse and describe the total study condition for the students up to the Bachelor of Law degree.

Scope:

400-500 students/year at the Department of Law at the University of Uppsala. Employers in state departments, communities and industry.

Methods:

Background variables for those admitted was collected in conjunction with admission. Data concerning their study conditions were collected by means of questionnaires and the results of their studies is collected from records on their study cards.

Their perception of the Department of Law and the instructional procedures and examination procedures are established by means of interviews and questionnaires. Employers and lawyers are interviewed to establish their opinions concerning aims and objectives of the law studies at the University of Uppsala.

Main findings:

The project is still in a descriptive and problem oriented phase. As shown in the reports listed below, there is a tendency to drop out during the first year, although the study conditions seem to be good. The most frequent motive for dropping out is low interest, uncertainty about the future, lost motivation for study and difficulties in learning. A very small part of the input population get their degree in time (in 9 terms) and less than 50 % of the students have lagged behind the normal study schedule at the beginning of the second year.

Bibliographic references:

All reports are in Swedish.

Holmström, Lars-Gunnar Analys av studieresultaten för inskrivningsårgången 1965 vid juridiska fakulteten vid Uppsala universitet. (An analysis of the study results for the students of 1965 at the Faculty of law at the University of Uppsala). University of Uppsala, 1971, 67 p.

Holmström, Lars-Gunnar & Wallentin, Eric Studieförhållanden, attityder till studierna och studieresultat. En analys av de som ht -70 studerade Civilrätt I vid juridiska institutionen i Uppsala. (The study situation, attitudes towards the studies and study results. An analysis of students attending the study course "Civil Law I" autumn term 1970 at the Institute of Law at the University of Uppsala). University of Uppsala, 1972, 43 p.

Berggren, Anne-Charlotte & Fries, Maud En analys av orsakerna till studieförseningar och studieavbrott under det första läsåret vid den juridiska fakulteten vid Uppsala universitet. (An analysis of the reasons for study delays and dropouts during the first year at the Faculty of Law at the University of Uppsala). University of Uppsala, 1972, 22 p.

Permark, A. & Öster, Ch. Analys av orsaker till studieeftersläpningar och studieavbrott under första terminen vid juridiska fakulteten i Uppsala. (An analysis of the reasons for study delays and dropouts during the first term at the Faculty of Law at the University of Uppsala). University of Uppsala, 1972.

104.

Project title:	Efficiency Analysis of an Educational System at University Level
Carried out at:	The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala
Project leader:	Lars-Gunnar Holmström, Outi Lundén
Number of researchers:	2 Other personnel: 4-5
Starting date:	1969 Date of completion: 1973
Source of finance:	The Office of the Chancellor of the Swedish Universities
Background and aims:	The problems are whether the high percentage of failures are due to lack of motivation or ineffective teaching methods, or both of these factors. The aim of the project is to develop teaching methods and educational goals more adapted to the students' aims, interests and study prerequisities.
Scope:	200 students/term. Data has and will continue to be collected during 1969-1973.
Methods:	In order to analyze the study results, the following information has been collected: 1. a) Questionnaires about students' attitudes towards teaching and courses. b) Questionnaires concerning background information such as earlier experiences of university studies, overlap of contents with other subjects, reasons to choose education as a subject. 2. Tests have been used to diagnose the students mathematical and reading abilities. 3. Evaluation of the effect of a "class supervisor" system will be made.
Main findings:	The efficiency of a university institution (i.e. the institute of education) as it is measured, in the output, has decreased about 30 % in two years. The later a course is on a term schedule, the worse is the output of this course.
Bibliographic references:	Holmström, Lars Gunnar Analys av studieutfallet. (An analysis of the study results). University of Uppsala. (In Swedish) Lundén, Outi Genomströmningsanalys av inskrivningsårgången ht -71. (Flow analysis of students enrolling in the autumn term of 1971). University of Uppsala, 1972. (In Swedish).

105.

Project title: Study Situation and Study Habits in the First Class of the Secondary School (Project SSIG)

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Lars-Gunnar Holmström, Annika Lundmark

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1973

Source of finance: The National Board of Education

Background and aims: The aim of the project is to investigate the study situation, study methods and study skills and their relations with social variables, personality and aptitude for pupils in their first year of the secondary school.

The results of the investigation shall, if possible, give recommendations for the study skill training in the first year of the secondary school.

Scope: About 800 pupils in grade 1 of the secondary school.

Methods: Collection of background data from pupils' existing records, supplemented by data from questionnaires. Ability data is collected through tests from earlier grades. Background variables such as family data, earlier study habits, interest in and attitudes to school, is collected through questionnaires.

Main findings: All data is collected and the analysis is in progress. The final report is expected to be published before June 1973.

Bibliographic references:

Lundmark, Annika Litteraturgenomgång och redovisning av gymnasisternas bakgrundsdata. (A literature survey and an account of background data of secondary school students). University of Uppsala, 1971, 54 p + app. (In Swedish).

Lundmark, Annika Resultat från en lärarenkät rörande studiefärdigheten hos eleverna i årskurs 1 i gymnasieskolan. (The results of a teacher questionnaire concerning the study skills among pupils in grade 1 of the secondary school). University of Uppsala, 1972, 7 p. (In Swedish).

106.

Project title: Students and Methods in Adult Education

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Roland Johansson, Lars Göran Molander, Wilhelm Sjöstrand

Number of researchers: 2.5 Other personnel: 2

Starting date: 1967 Date of completion: 1973

Source of finance: The National Board of Education

Background and aims:

I. Description of adult education at the secondary school level and of the study circles administered by the various organizations for independent study. The aim of the investigation is to describe the social background, aptitudes and personal characteristics of students enrolled in both federal and local adult education programmes, folk high schools, correspondence courses and the above-mentioned study circles. A sub-project concerned with a study of a representative selection of students between 14 and 65 years of age.

II. An experiment on the effects of assigning students to English classes in the secondary school adult education programmes on the basis of their ability to study efficiently (e.g. reading speed, to take notes etc.) as well as an analysis of the reasons for dropping out of this kind of instruction. The collection of data on social background, aptitudes and personality was carried out in order to make possible comparisons with previous sub-projects.

Scope: Several samples of students, each sample containing between 100-1,000 students.

Methods:

I. Descriptive Part:

Group and individual tests using:

a)
1. questionnaires
2. aptitude tests
3. personality tests

b)
1. inquiries by mail
2. telephone interviews

II. Methodological experiment:

Group tests using:

a)
1. Tests of the ability to study efficiently
2. questionnaires
3. aptitude tests
4. personality tests
5. proficiency tests in English

b)
1. investigation of students attitudes
2. investigation of student dropouts

Main findings:

I. Descriptive part:

The most significant variables were shown to be:

1. Age, sex, education
2. Income, occupation, employment
3. Reasons for studying
4. Interests
5. Aptitudes
6. Personality

II. Methodological experiment

Field work completed. Data analysis has just begun.

Bibliographic references:

Johansson, Roland & Molander, Lars Göran Vuxenstuderande 1968. Social bakgrund, begåvning, personlighet. Del I. Preliminär rapport. (Adult students 1968. Social background, ability, personality. Part I. A preliminary report). University of Uppsala, 1969, 306 p + app. (In Swedish).

Johansson, Roland & Molander, Lars Göran Vuxenstuderande 1968. Social bakgrund, begåvning, personlighet. Del II. Rapport 1970. (Adult students 1968. Social background, ability, personality. Part II.). University of Uppsala 1970, 69 p. (In Swedish).

107.

Project title: The Monitorial Method - Its Growth and Extension with Special Point in Swedish Public Education

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Thor Nordin, Wilhelm Sjöstrand

Number of researchers: 1 Other personnel: -

Starting date: 1970 Date of completion: 1972

Source of finance: -

Background and aims: The project aims at illustrating the growth and extension of the monitorial method in different countries with respect to Swedish public education both in regard to secondary and public school education.

Scope: The project intends to form a basis for future study of the monitorial method as an instrument for the realizing of the ideas of liberty and equality.

Methods: Literature studies.

Main findings: The monitorial method seems to have been discussed especially from two main points of view:

a) as a cheap instrument for attaining an enlarged public education and

b) as means to both an intellectual and a moral education.

Bibliographic references:

Nordin, Thor Joseph Lancasters svenska skolplan (Joseph Lancaster's Swedish school plan) Pedagogisk Tidskrift, No. 2-3, 1970, pp. 47-66. (In Swedish).

108.

Project title: Freedom and Equality as Basic Educational Principles in the Western Democracy (Project FOJ)

Carried out at: The Institute of Education, University of Uppsala, S:t Olofsgatan 12, S-752 21 Uppsala

Project leader: Wilhelm Sjöstrand

Number of researchers: 5 Other personnel: 5 (varying from time to time)

Starting date: 1969 Date of completion: 1975

Source of finance:
finance: The Tercentenary Fund of the Bank of Sweden and The Social Science Research Council

Background and aims: Since the 18th century, two key words and basic concepts in the discussion of educational problems within a democracy have been freedom and equality. In our own time, these principles very often have been considered more or less contradictory. In Sweden, many politicians have found it necessary to limit freedom in education in order to realize something they call equality. Thereby, the two concepts are used in a diffuse and imprecise way. Research in education has not contributed to clear up the situation. This must be done, if research is to help those who are responsible for development in society.

Scope: To analyse the different opinions about freedom and equality in education within Western democracy from about 1750 up till now.

Methods: Reading and interpretation of the relevant and most important sources in the discussion of the problem in Sweden and other countries, making comparisons with modern research contributions concerning every epoch and leading character.

Main findings: Most people have found freedom and equality possible to combine. There is no contradiction between everyone's right to realize his own talents on one side and the necessity to develop humanity and human dignity on the other. The programme has usually been a differentiated teaching in school, training institutes and universities and the same education for all in the society. These two aims need not come in conflict with each other.

Bibliographic references: All reports are in Swedish

Sjöstrand, Wilhelm John Locke om den edukativa processens betydelse för det mänskliga samhället. (On Locke). University of Uppsala, 1970, 34 p.

Lengborn, Thorbjörn Individualitet (frihet) och fostran (lydnad) hos Ellen Key, särskilt enligt "Barnets århundrade" och dess olika upplagor. (On Ellen Key). University of Uppsala, 1971, 42 p.

Sjöstrand, Wilhelm Rousseau och Helvétius - två motsatser i debatten om frihet och jämlikhet inom fransk förrevolutionär pedagogik. I. Jean-Jaques Rousseau. (On Rousseau). University of Uppsala, 1971, 36 p.

Sjöstrand, Wilhelm Helvétius och Rousseau - två motsatser i debatten om frihet och jämlikhet inom fransk förrevolutionär pedagogik. II. Helvétius' människo- och samhällsuppfattning i relation till Rousseaus. (On Helvétius). University of Uppsala, 1971.

Sjöstrand, Wilhelm Människans och medborgarens rättigheter 1789. (On the Declaration of Human Rights). University of Uppsala, 1971, 70 p.

Sjöstrand, Wilhelm Frihets- och jämlikhetsproblemet inom fransk revolutionspedagogik. (On the French Revolution). University of Uppsala, 1972, 81 p.

Kappel, Kallen Naturliga förutsättningar kontra jämlikhet inom Nils von Rosensteins upplysningstänkande. (On Rosenstein). University of Uppsala, 1972, 24 p.

Sjöstrand, Wilhelm Frihet och jämlikhet. Två grundbegrepp inom 60-talets svenska pedagogik. (Freedom and Equality. Two basic concepts in Swedish education in the sixties). Gebers, Uppsala, 1970.

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